

FINAL REPORT FOR SAAD - TROUSDALE DRIVE SITE

**NASHVILLE, DAVIDSON
COUNTY, TENNESSEE**

Submitted to:

THE SAAD SITE STEERING COMMITTEE



**Signal Environmental
Services, Inc.**

MARCH 1995



2 4 1139

301 Callahan View Road
Suite 227
Knoxville, TN 37919

March 7, 1995

VIA FACSIMILE AND FEDERAL EXPRESS

Mr. Fred B. Stroud, On-Scene Coordinator
U.S. Environmental Protection Agency, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

**Reference: Saad Trousdale Drive Site Phase III Removal Action
Submission of Final Report**

Dear Mr. Stroud:

The Saad Site Steering Committee is pleased to submit the Final Report for the above-referenced project. You will be receiving two (2) copies of the report via overnight courier on March 8, 1995 under separate cover directly from Signal Environmental Services, Inc.

If you should have any questions or comments, please contact Mr. Bennie L. Underwood or me at your earliest convenience at (615) 691-5052.

Very truly yours,
de maximis, inc.

Daniel A. Lovingood, P.G.

DAL/jca

/Enclosures Under Separate Cover

cc: Saad Trousdale Site Repository
Bennie L. Underwood

FINAL REPORT

for

SAAD TROUSDALE DRIVE SITE

3655 Trousdale Drive

Nashville, Davidson County, Tennessee

Prepared for:

The Saad Site Steering Committee

Prepared by

Signal Environmental Services, Inc.

Chattanooga, Tennessee

March 1995

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1.0 Introduction

On September 23, 1994 Signal Environmental Services, Inc. (SIGNAL) was awarded the contract to perform a Phase III Removal Action at the Saad Trousdale Drive Site in Nashville, Tennessee. The Removal Action Work Plan was prepared on behalf of the Saad Site Steering Committee in conjunction with a U. S. EPA Administrative Order by Consent (AOC). The U. S. EPA and the Saad Site Steering Committee agreed to implement the workplan for limited removal activities. This document is the final report on SIGNAL's removal activities performed at the Saad Site as required under the AOC.

1.1 Site History

A detailed summary of previous site activities and data collected can be found in the RA/FI Report submitted to the U. S. EPA, Region IV in March 1992 and the Saad Site RA/FI Phase II report submitted in April 1993.

1.2 General Site Description

The general site description for the purposes of the Phase III Removal Action completed under the AOC is the area to which access was necessary to implement the EPA-approved Phase III Work Plan (August 1994), being the property owned by Ellis and Kathy Saad at 3655 Trousdale Drive, the property owned by Franklin Brick Company at 3567 Trousdale Drive, and the portion of the property owned by CSX that is immediately west of these two properties and to the east of the railroad berm on the east side of the CSX property, in Nashville, Davidson County, Tennessee.

2.0 Scope of Work

A copy of the original and modified work plan is located in Appendix 1.

2.1 Health and Safety Plan

Prior to site work being performed a site specific Health and Safety Plan was prepared and provided to EPA along with personnel training and medical records. A copy of the plan is included in Appendix 2.

2.2 Sampling Work Plan

A sampling plan was prepared prior to site work being performed. This plan was used to select and manage site sampling for the purposes of waste characterization and proper disposal. This plan is included in Appendix 3.

2.3 Site Mobilization/Preparation

2.3.1 Security

Site security was maintained by the use of fencing that had access controlled by a locking gate. A site office was placed inside the gate to afford visual contact with the gate and most of the work area.

2.3.2 Work Zone

Actual work zones inside the fenced area were delineated by the use of flagging, signs, and a construction fence to restrict unauthorized personnel from the work areas.

2.3.3 Decontamination Facilities

Decontamination facilities for personnel were located as shown in Figure 1. A temporary decontamination pad was constructed next to the personnel decontamination area. Pumps, excavation equipment, and PPE were decontaminated prior to off-site removal and demobilization.

2.3.4 Materials Staging

Excavated material was staged on double layers of 6 mil plastic sheeting and covered with 2 layers of plastic. The plastic was anchored using sand bags. A straw/hay berm was placed around the perimeter of each soil stockpile area. The soil staging areas are shown in Figure 1. The staging of soil was done on five original soil pads (Figure 1). The soil on Pad #1 was characterized as non-hazardous and was the soil that was sent to Sanifill. The soil on Pad #2 characteristically hazardous. Pad #2 was split into two sections (Pad #2NH and Pad #2H) because it was felt that one area might have been characteristically non-hazardous.

2.4 Excavation of Soil

The limits of excavation are shown in Figure 1. Excavation was done in two cells. Cell one was located on Franklin Brick property. Cell two was located on the Saad Property. The orientation of the cells are shown in Figure 1. A north to south cross section (Section A-A') of the cells is shown in Figure 2.

Excavated soil was removed and placed in a pile next to the pit. This soil was then carried to the staging area by front end loader. The staging area consisted of five pads. In the staging area the soil was sampled as required by the Sampling Work Plan (Appendix 3).

A total of 826 yd³ was excavated. In addition to soil some concrete was removed. The concrete was tested and stockpiled. The CCC Group, representing Alcoa, took control of the site for one week and excavated 1000 yd³ of soil under a separate Administrative Order by Consent. The CCC Group placed the concrete in the bottom of cell #2.

2.5 Backfill

Upon completion of the excavation, the hole was approximately half-filled with clean fill, surge rock from Vulcan Materials, by the direction of Mr. Fred Stroud, EPA On-Scene Coordinator.

2.6 Soil Sampling

Two-four ounce samples were collected for each 15 yd³ excavated and stockpiled. Fourteen samples were collected per 115 yd³ of stockpiled soil. Seven were composited to make one sample per stockpile for disposal characterization. The remaining soil was archived for possible additional analyses. The sample locations are shown on Figure 3. In Appendix 4 copies of all soil laboratory analyses are provided. Appendix 5 contains the chains of custodies and sample seals for the laboratory samples.

Analysis of the soil on Pad #1 found it to be non-hazardous. Pads #2, #3, #4, and #5 were found to be characteristically hazardous for disposal purposes. Pad #2 was split into two sections (Pad #2NH and Pad #2H) to further evaluate the characteristics of the stockpile. Pads #2NH, #2H, #3, #4 and #5 were resampled with the laboratory analyses sent to Specialized Assays Environmental of Nashville as a recheck (Samples R001-R0035). R001-R007 were consolidated for one analysis. R008-R014 were consolidated into one sample. R015-R021 were consolidated for a single analysis. R022-R028 were consolidated into one sample. The last analysis was from the consolidation of samples R029-R035. Two samples were also sent to Analytical Laboratory in Chattanooga as another recheck (Samples R001-R007 were consolidated for one analysis. R015-R021 were consolidated into the second laboratory sample for analysis). Figure 4 shows the resample locations. Table 1A and 1B is a summary of soil samples and resamples and how they were consolidated for analysis. Analysis of resamples confirmed previous results.

2.7 Decontamination/Excavation Water

Runoff water and decontamination water pumped from the excavation were collected in a 20,000 gallon frac tank located on the site between the office trailer and the excavation pit. The water was sampled, characterized, and shipped to Laidlaw Environmental Services, Inc. (Antioch, Tn.) for disposal. Copies of the manifests (W001-W004), laboratory characterization (Sample SAD11/3001W), and chain of custody are provided in Appendix 6.

2.8 Debris/Soil Disposal

The soil that was excavated was characterized for disposal. Approximately 222 yd³ of characteristically non-hazardous and 685.04 tons of potentially characteristically hazardous soil was disposed. Disposal of the latter was based on time and cost considerations and no further effort was made to segregate potentially non-hazardous portions of the stockpiles. The characteristically hazardous soil was shipped to Chemical Waste Management, Inc. (29 shipments to Fort Wayne, Ind.) and Laidlaw Environmental Services, Inc. (3 shipments to Pinewood, S.C.). The non-hazardous soil was shipped to Sanifill of Tennessee (10 shipments to Lewisburg, Tn.). Table 2 is a summary of the waste shipments with manifest numbers made to offsite disposal facilities. The soil manifests are located in Appendix 7.

3.0 Air Sampling

On November 16, 1994 Greg Veal, Saad Superfund Site Manager, received odor complaints from Mr. Tot McCullough, Division Manager of Franklin Brick Co. Evidently the excavation work on this project had encountered an area of material that emitted a strong odor. When the area with the odor was encountered, SIGNAL employees donned level C respirator protection. Employees working outside in the Franklin Brick yard complained that they were getting headaches from the odors in the air. The area of concern seems to be off the north west corner of the Franklin property and along the Saad property line.

On November 17, 1994, Michael R. Matthews, Corporate Health and Safety Officer investigated the situation. An air pump with carbon cartridge was set up on the fence between the Saad project and Franklin Brick 3 feet above ground and 15 feet from the Franklin Brick building. Shortly after setting up the pump, excavation at the site began again and the volatile (phenolic like) odor was again detected. The sampling pump was operated for four hours and HNU Photoionization Meter readings were taken hourly at the fence line and at the edge of the pit while the odor was being detected. The HNU readings are summarized in Table 3.

After four hours, the cartridge was removed and brought to Analytical Industrial Research Laboratory in Chattanooga for volatiles and phenols analysis. The results of the air sample analysis indicated that only six compounds were detected in the air sample: 1,2-dichloroethene (0.172 ug/l), 1,1,1-trichloroethane (0.004 ug/l), carbon tetrachloride (0.029 ug/l), trichloroethene (0.032 ug/l), 4-methyl-2-pentanone (0.010 ug/l), and toluene (0.016 ug/l). None of these compounds were in a concentration significant enough to warrant further action. The odor problem did not occur again. Copies of the laboratory analyses, sampling equipment calibration, and chain of custody for the air sample are included in Appendix 8.

4.0 Site Permits

In Appendix 9 copies of the various local permits that were obtained for this site work are presented.

5.0 Demobilization

SIGNAL completed all work under the AOC in late December 1994, except for pumping the

remaining water from the excavation, backfilling the excavation and replacing the railroad spur, and was instructed by EPA to delay completion of this remaining work. On January 21, 1995 EPA provided instructions that pumping the remaining water from the excavation, backfilling the excavation and replacing the railroad spur would not be required under the workplan, and to demobilized from the site. SIGNAL completed demobilization on January 21, 1995 (Appendix 10).



FIGURE 2
SAAD SITE EXCAVATION CELLS 1 AND 2
CROSS-SECTION A-A'

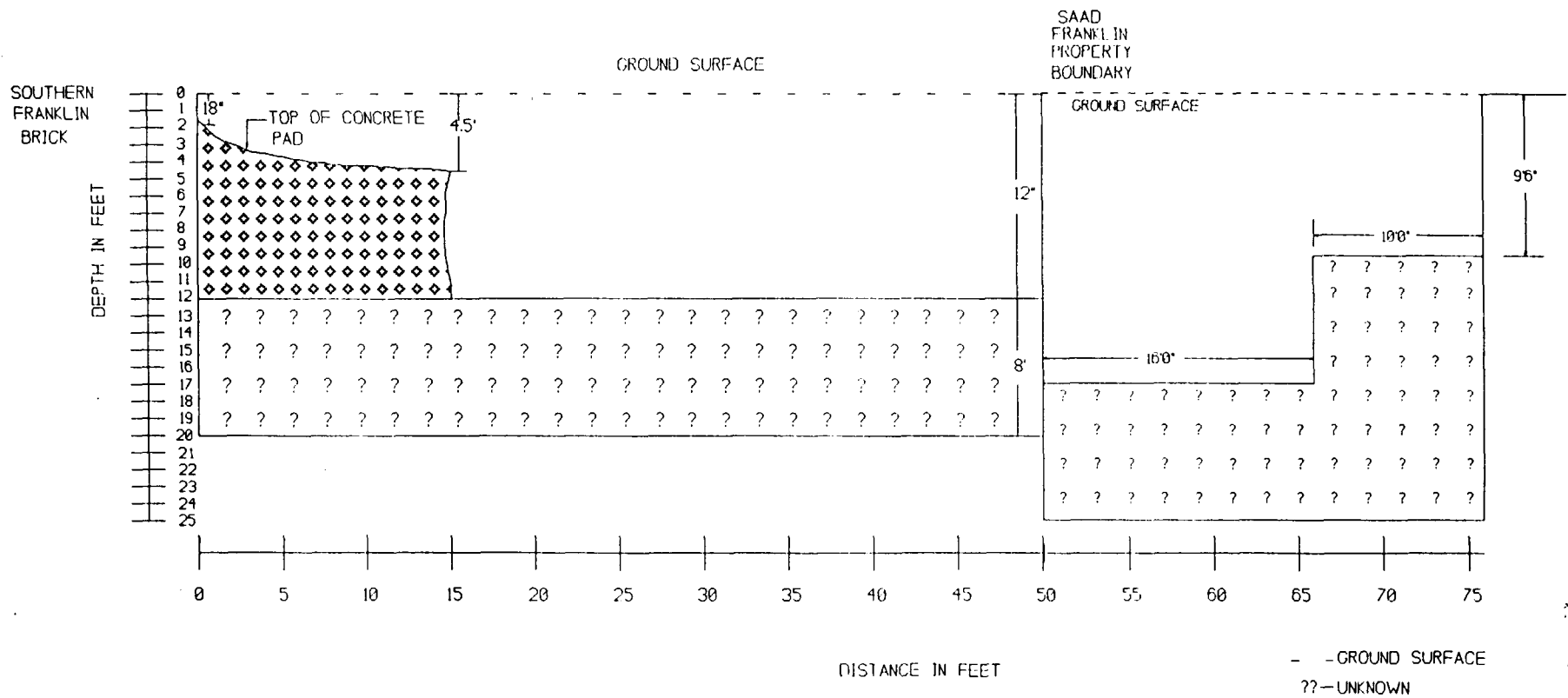


FIGURE 3
Soil Sample Locations of Stockpiles
Saad Site, Fall 1994

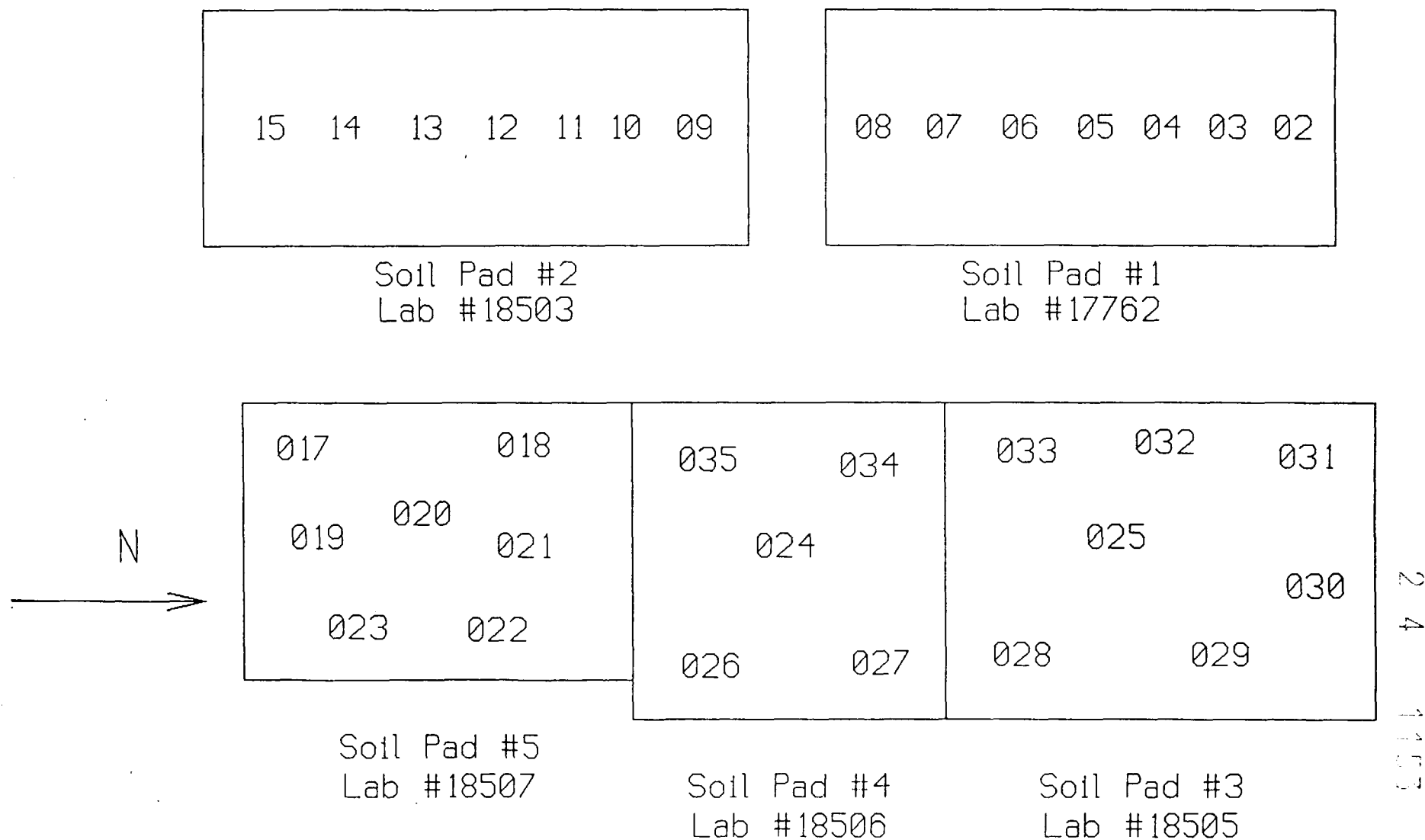
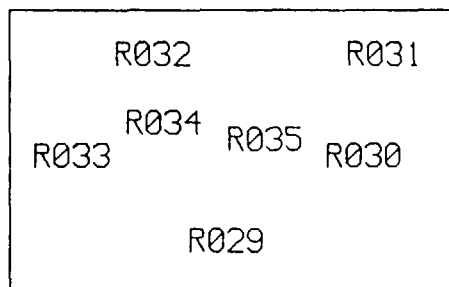
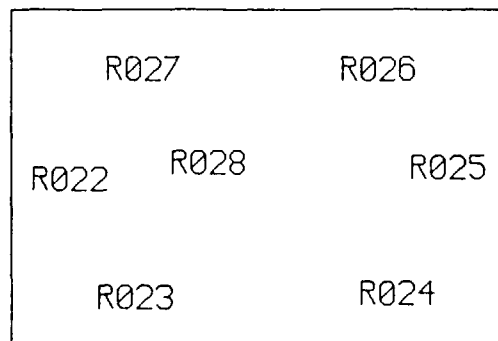


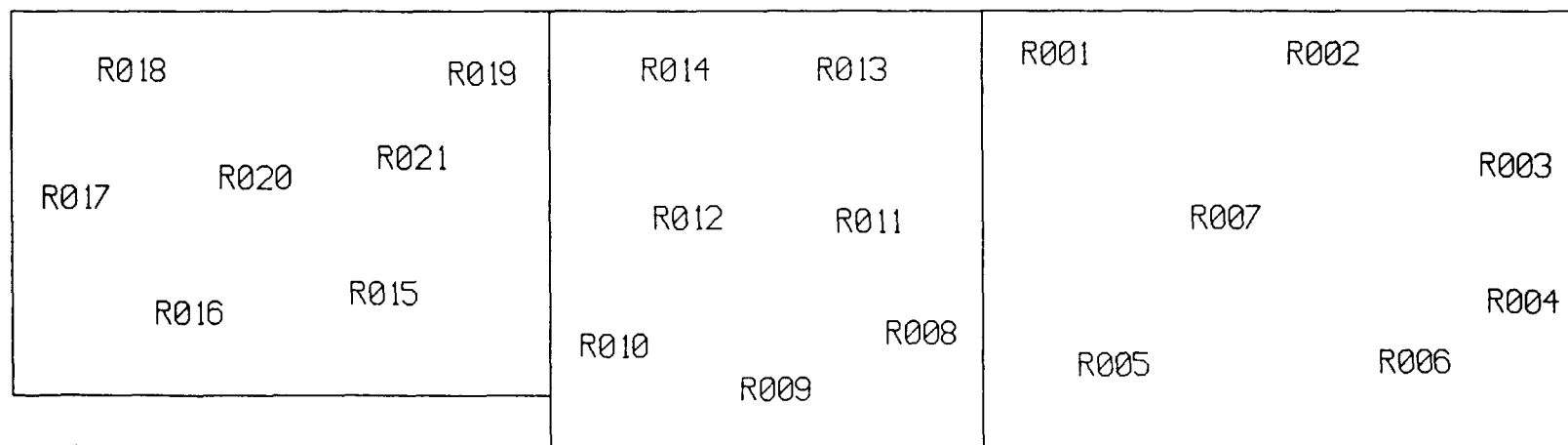
FIGURE 4
Resample Locations of Stockpiles
Saad Site, December 1994



Soil Pad #2NH



Soil Pad #2H



Soil Pad #5

Soil Pad #4

Soil Pad #3

**TABLE 1A: SAAD SITE SOIL SAMPLE SUMMARY
FALL 1994**

SAMPLE ID NO.	DISPOSITION
SAD10/27001A	Analyzed to characterize soil for disposal. (Lab #17431 from Pad #1)
SAD10/27001B	Held for future analysis if needed. (Lab #17431 from Pad #1)
SAD11/3002A&B	2A-8A Consolidated for one analysis and 2B-8B held for possible future analysis. Samples from Pad #1 (Lab #17762).
SAD11/3003A&B	
SAD11/3004A&B	
SAD11/3005A&B	
SAD11/3006A&B	
SAD11/3007A&B	
SAD11/3008A&B	
SAD11/3009A&B	9A-15A Consolidated for one analysis and 9B-15B held for possible future analysis. Samples from Pad #2 (Lab #18503).
SAD11/3010A&B	
SAD11/3011A&B	
SAD11/3012A&B	
SAD11/17013A&B	
SAD11/17014A&B	
SAD11/17015A&B	
SAD11/17016A&B	Laboratory analysis of concrete. (Lab #18504)
SAD11/17017A&B	17A-23A Consolidated for one analysis and 17B-23B held for possible future analysis. Samples from Pad #5 (Lab #18507).
SAD11/17018A&B	
SAD11/17019A&B	
SAD11/17020A&B	
SAD11/17021A&B	
SAD11/17022A&B	
SAD11/17023A&B	

TABLE 1A cont.	
SAD11/17024A&B	24A, 26A, 27A, 34A, 35A, consolidated for one analysis. 24B, 26B, 27B, 34B, 35B held for possible future analysis. Samples from Pad #4 (Lab #18506).
SAD11/17026A&B	
SAD11/17027A&B	
SAD11/17034A&B	
SAD11/17035A&B	
SAD11/17025A&B	25A, 28A, 29A, 30A, 31A, 32A, 33A consolidated for one analysis. 25B, 28B, 29B, 30B, 31B, 32B, 33B held for possible future analysis. Samples from Pad #3 (Lab #18505).
SAD11/17028A&B	
SAD11/17029A&B	
SAD11/17030A&B	
SAD11/17031A&B	
SAD11/17032A&B	
SAD11/17033A&B	

**TABLE 1B: SAAD SITE SOIL RESAMPLE SUMMARY
DECEMBER 1994**

SAMPLE ID NO.	LAB NAME	DISPOSITION
R001	Analytical Industrial Research Laboratories, Inc.	R001-R007 Consolidated for one analysis. Samples from Pad #3 (Lab #19068).
R002		
R003		
R004		
R005		
R006		
R007		
R015	Analytical Industrial Research Laboratories, Inc.	R015-R021 Consolidated for one analysis. Samples from Pad #5 (Lab #19069).
R016		
R017		
R018		
R019		
R020		
R021		
R001	Specialized Assays Environmental	R001-R007 Consolidated for one analysis. Samples from Pad #3 (Lab #94-A063854).
R002		
R003		
R004		
R005		
R006		
R007		

TABLE 1B cont.

R008	Specialized Assays Environmental	R008-R014 Consolidated for one analysis. Samples from Pad #4 (Lab #94-A063855).
R009		
R010		
R011		
R012		
R013		
R014		
R015	Specialized Assays Environmental	R0015-R021 Consolidated for one analysis. Samples from Pad #5 (Lab #94-A063856).
R016		
R017		
R018		
R019		
R020		
R021		
R022	Specialized Assays Environmental	R022-R028 Consolidated for one analysis. Samples from Pad #2H (Lab #94-A063857).
R023		
R024		
R025		
R026		
R027		
R028		
R029	Specialized Assays Environmental	R029-R035 Consolidated for one analysis. Samples from Pad #2NH (Lab #94-A063858).
R030		
R031		
R032		
R033		
R034		
R035		

**TABLE 2: SAAD OFF-SITE WASTE SHIPMENT SUMMARY
FALL 1994**

Type	Manifest #	Waste Stream	Designated Facility Name	Total Quantity*
Non-hazardous	W0001	Pit water	Laidlaw Environmental Services ¹	5000 gal
Non-hazardous	W0002	Pit water	Laidlaw Environmental Services ¹	5000 gal
Non-hazardous	W0003	Pit water	Laidlaw Environmental Services ¹	5000 gal
Non-hazardous	W0004	Pit water	Laidlaw Environmental Services ¹	5000 gal
Hazardous	H0001	Soil	Chemical Waste Management Inc. ²	46000 lb
Hazardous	H0002	Soil	Chemical Waste Management Inc. ²	46000 lb
Hazardous	H0003	Soil	Chemical Waste Management Inc. ²	46000 lb
Hazardous	H0004	Soil	Chemical Waste Management Inc. ²	48000 lb
Hazardous	H0005	Soil	Chemical Waste Management Inc. ²	46000 lb
Hazardous	H0006	Soil	Chemical Waste Management Inc. ²	47000 lb
Hazardous	H0007	Soil	Chemical Waste Management Inc. ²	47000 lb
Hazardous	H0008	Soil	Chemical Waste Management Inc. ²	48000 lb
Hazardous	H0009	Soil	Chemical Waste Management Inc. ²	47000 lb
Hazardous	H0010	Soil	Chemical Waste Management Inc. ²	46000 lb
Hazardous	H0011	Soil	Chemical Waste Management Inc. ²	47000 lb
Hazardous	H0012	Soil	Chemical Waste Management Inc. ²	44000 lb
Hazardous	H0013	Soil	Chemical Waste Management Inc. ²	46000 lb
Hazardous	H0014	Soil	Chemical Waste Management Inc. ²	48000 lb
Hazardous	H0015	Soil	Chemical Waste Management Inc. ²	47000 lb
Hazardous	H0016	Soil	Chemical Waste Management Inc. ²	48000 lb
Hazardous	H0017	Soil	Chemical Waste Management Inc. ²	46000 lb
Hazardous	H0018	Soil	Chemical Waste Management Inc. ²	47000 lb
Hazardous	H0019	Soil	Chemical Waste Management Inc. ²	44000 lb
Hazardous	H0020	Soil	Chemical Waste Management Inc. ²	48000 lb
Hazardous	H0021	Soil	Chemical Waste Management Inc. ²	47000 lb

TABLE 2 cont.

Hazardous	H0022	Soil	Chemical Waste Management Inc. ²	47000 lb
Hazardous	H0023	Soil	Chemical Waste Management Inc. ²	40000 lb
Hazardous	H0024	Soil	Chemical Waste Management Inc. ²	47000 lb
Hazardous	H0025	Soil	Chemical Waste Management Inc. ²	40000 lb
Hazardous	H0026	Soil	Chemical Waste Management Inc. ²	48000 lb
Hazardous	H0027	Soil	Chemical Waste Management Inc. ²	44000 lb
Hazardous	H0028	Soil	Chemical Waste Management Inc. ²	42500 lb
Hazardous	H0029	Soil	Chemical Waste Management Inc. ²	48000 lb
Hazardous	H0030	Soil	Laidlaw Environmental Services ³	45000 lb
Hazardous	H0031	Soil	Laidlaw Environmental Services ³	44000 lb
Hazardous	H0032	Soil	Laidlaw Environmental Services ³	44000 lb
Non-hazardous	08936	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08937	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08938	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08939	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08940	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08941	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08942	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08943	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08944	Soil	Sanifill of Tennessee ⁴	22 tons
Non-hazardous	08945	Soil	Sanifill of Tennessee ⁴	20 tons

²Estimated amount shipped

¹Laidlaw Environmental Services (WT), Inc.
1640 Antioch Pike
Antioch, Tennessee 37013
Actual amount shipped = 20,000 gal

³Chemical Waste Management, Inc.
4636 Adams Center Road
Fort Wayne, Indiana 46806
Actual amount shipped = 621.77 tons

³Laidlaw Environmental Services of South Carolina, Inc.
Route 1, Box 255
Pinewood, South Carolina 29125
Actual amount shipped = 63.27 tons

⁴Sanifill of Tennessee
Cedar Ridge Landfill
2340 Mooresville Highway
Lewisburg, Tennessee 37091
Actual amount shipped = 222 yd³

**TABLE 3: HNU Reading, ppm
Saad Site, November 17, 1994**

Time	Franklin Brick Fence	Saad Excavation Pit
7:45 a.m.	1.6	3 - 5
8:15 a.m.	1.5	4 - 6
9:05 a.m.	1.7	4 - 6
9:56 a.m.	1.8	5 - 6
11:45 a.m.	8 - 10	5.9

NOTE: Ranges with HNU readings are due to a slight breeze that periodically interfered with steady readings. The wind was blowing in the direction of the pit to the fence.

APPENDIX I

EXHIBIT A

**SAAD SITE
PHASE III REMOVAL ACTION
WORK PLAN**

Submitted by:

Saad Site Steering Committee

September 20, 1994

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1.0 INTRODUCTION

This Removal Action Work Plan has been prepared on behalf of the Saad site Steering Committee (Committee) in conjunction with the Administrative Order by Consent (AOC), EPA Docket No. 95-1-C, dated October 5, 1994, to complete removal activities at the site. This Work Plan is based on information developed during Phase I and Phase II site removal and characterization investigations. The U.S. EPA and the committee have agreed to implement this Work Plan for the limited and discrete removal activities described herein.

1.1 Background/History and Previous Removal Activities

A detailed/description of past activities associated with Saad Site removal and site characterization activities has been provided in the Removal Action/Field Investigation Report (RA/FI) submitted to the U.S. EPA, Region IV in March 1992 and the Saad Site RA/FI Phase II report submitted in April 1993. A detailed summary of the combined removal activities can be found in the RA/FI Phase II report.

1.2 General Site Description

The general site description for the site for the purposes of this Work Plan is the area to which access is necessary to implement this Work Plan, being the property owned by Ellis and Kathy Saad at 3655 Trousdale Drive, the property owned by Franklin Brick Company at 3567 Trousdale Drive, and the portion of the property owned by CSX that is immediately to the west of these two sites and to the east of the railroad berm on the east side of the CSX property, all in Nashville, Tennessee.

1.3 Objectives

The objective of this Work Plan is to detail the project scope to address additional discrete soil and debris removal activities on the Franklin Brick property in the area to the west of the Franklin Brick building as specified in Section 3.0 (see Figure 1).

1.4 Project Organization

The general Project Organization for performance of the proposed removal action will remain the same as described in Section 1.5 and Figure 1-3 of the Removal Action Field Investigation Work Plan, Phase II, for the Saad Trousdale Drive Site, Nashville, Tennessee, July 1992. Completion of this discrete removal action will complete removal activities at the Saad Site.

1.5 Site Management

General Site Management responsibilities as presented in the RA/FI Phase II, Section 1.6, page 1-6 of the Removal Action Field Investigation Work- Plan, Phase II, for the Saad Trousdale Drive Site, Nashville, Tennessee, July 1992 will remain the same for the proposed removal activity.

1.6 Health and Safety/Quality Assurance and Control

The Health and Safety/Quality Assurance and Control activities associated with the removal action will conform to Section 1.8, of the Removal Action Field Investigation Work Plan, Phase II, for the Saad Trousdale Drive Site, Nashville, Tennessee, July 1992 to include Appendices I, Quality Assurance Project Plan, and Appendix II, Revised Health and Safety Plan.

1.7 Contractor

All references herein, or in documents referred to herein, to "Contractor", "Project Manager" or "Site Manager" shall refer to Signal Environmental Services, Inc., or alternate chosen by the Committee.

2.0 MOBILIZATION/SITE PREPARATION

Site mobilization and preparation prior to initiating the Work Plan Tasks will include and/or require the following:

- (1) Written approval of the Removal Action Work Plan from EPA.

- (2) The current lessee of the Saad Building and property will be required to clear the Saad property of any equipment that may obstruct the removal action. The Saad property will be used as the staging area for excavated soils and debris.
- (3) Signed access agreements, as appropriate, to allow performance of work plan tasks.
- (4) Additional security fencing, gates, and locks will be installed as necessary to restrict access to the site and to allow effective equipment and vehicles access/egress for the site activities.
- (5) Construction of designated fluid holding tank area for accumulated water and excavation associated decontamination waters.
- (6) Removal of a portion of the existing rail line on the Franklin Brick property and the placement of a rail stop to protect the removal action associated personnel and equipment and allow continuous business activities to be performed at the Franklin Brick Yard. This activity will be performed by an approved contractor. Replacement of rails will be performed by a contractor approved by Franklin Brick and CSX, with CSX personnel providing installation inspection, as appropriate.

2.1 Transition and Security

Upon the later of 30 days after the Committee receives notice of EPA's execution of the AOC, Contractor will initiate mobilization of the necessary personnel, equipment, and materials to facilitate temporary site security necessary to begin site activities. Site security for the proposed field activities will be established following the removal of all equipment currently stored on site by the current tenant/owner of the property. Site security measures will include the following:

- Temporary fencing and placarding as necessary to restrict site access.
- Establishment of the Site command post which will be the designated entry into the Site for all site personnel, visitors, etc.

Permanent security measures now in place will be maintained during the work, to include permanent perimeter fencing, security lighting, and placarding.

2.2 Site Work Zone Definition

The Work Zones and associated levels of personnel protection have been previously provided in Section 1.7 of the July 1992 RA/FI Phase II Work Plan. Areas in which site excavation and staging activities are being performed will be designated as the Exclusion Zone.

The Contaminant Reduction Zone (CRZ) is the transition area between the potentially contaminated area and the clean area. This zone will include all decontamination areas. Multiple personnel and equipment decontamination areas are expected during project implementation.

The Support Zone is the location of administration and other support functions needed to keep the operations in the Exclusion Zone and Contaminant Reduction Zone running smoothly.

2.3 Decontamination Facilities

Decontamination Facilities/Methods - Initial decontamination areas will be located in the general area indicated in Figure 2. Multiple decon areas are anticipated due to site excavation and debris staging activities. Water and electricity to support activities will be obtained from the Saad building if possible. If necessitated by space limitations or access restrictions, the decontamination areas will be relocated.

2.4 Materials Handling and Staging

Materials handling and staging will be a significant problem associated with this removal activity. The materials staging map, Figure 2, has been prepared to allow for both accumulation of soils and debris, effective movement of both excavation and staging/loading equipment, and a designated clean area for the loading of debris for off site disposal eliminating constant decontamination of equipment.

Additional space has been left for potential segregation activities, movement of any debris that, based on TCLP analysis is characteristically hazardous for waste disposal.

All debris will be placed on and covered with plastic sheeting. A berm will be constructed with straw/hay for each soil/debris pile. These bermed areas will be reused during the course of this removal action.

2.5 Field Office Facilities

For purposes of this Work Plan, it is assumed that the former LTD Body Shop building will not be available for use as headquarters for operations and for storage of equipment and materials. Therefore, a field headquarters will be installed as appropriate.

3.0 EXCAVATION/REMOVAL PLAN

Removal activities will consist of the excavation of an area on the Franklin Brick property in the area of the former settling basin. The lateral limits of the excavation area are shown on Figure 1 and are as follows:

The area is bounded on the South by the bedrock/concrete washout basin outcropping and that area previously evaluated by past borings B1 and B2 (RA/FI - Phase I) that determined minimal residuals.

The area is bounded on the east side by the Franklin Brick building with a ten (10) foot standoff to prevent potential structural damage to the building. Due to the nature of the fill material, shoring has not been provided for in this plan.

The area is bounded on the west by the previous Franklin Brick Trench (RA/FI - Phase II) from which materials were removed and replaced with clean fill, and by any necessary standoff from the CSX railroad berm.

The area is bounded on the north side by the Saad/Franklin Brick property boundary.

The vertical limit of excavation will be established by the first to be encountered of the following:

- The base of any smear zone;
- The surface of the perched water table after the dewatering efforts described in the paragraph below;
- The practicability limit based on side wall stability and associated potential impacts on structural integrity of the adjoining structures (10 ft. stand-off from the berm and minimum 10 ft. stand-off from the Franklin Brick building); and/or,
- Bedrock.

Dewatering efforts will be made for the purpose of exposing any smear zone for excavation. Dewatering efforts will not proceed beyond what is practicable, the determination of which shall include consideration of results of the dewatering efforts and cost. This determination will be made in the field jointly by EPA's OSC and the Committee's Project Coordinator, and each may designate another authorized representative for this purpose. If these representatives are not able to agree, the dispute resolution procedure of the AOC shall apply and additional dewatering will not be conducted during the negotiation period. The Committee will not be required to continue dewatering efforts in excess of 25,000 gallons. However, if significant progress is being made in the dewatering effort, EPA may continue the process and then complete the work required pursuant to this Work Plan. The Committee acknowledges that EPA has indicated that it will seek to recover its costs for this work.

The maximum volume to be excavated and removed from the site for off-site disposal is 800 cubic yards. In order to provide flexibility for on-site decisions and with the concurrence of the EPA on-site representative, the vertical (subject to the foregoing) and/or lateral (i.e. to the north) extent/direction of excavation as detailed on Figure 1 may be altered, provided that the established maximum volume is not exceeded.

Based on previous analytical and disposal activities, excavated soil/debris is anticipated to be characteristically non-hazardous. As a result, segregation and decontamination of boulders and debris is not planned. Contingent upon actual disposal requirements and associated costs, segregation and cleaning may be conducted, with cleaned materials staged as fill for the excavation.

3.1 Excavation Methodology

Excavation of the area will proceed from a south to north direction. Excavation will not be performed in a lift methodology. Excavation will be performed with a trackhoe with a known bucket size. A bucket with a one yard (1 yard) capacity will be the minimum size allowed on-site. Estimated volumes will be based on the known bucket size.

The excavated materials will be deposited on the Saad Site for transportation to the tentative staging areas (see Figure 2) by the use of a track-loader. Due to the previous excavation performed at the site and the associated "soft spots", rubber tired vehicles/equipment will not be allowed in the active area.

Each soils staging area has been sized to accommodate approximately one hundred fifteen (115) cubic yards (yd³) of debris/soils. Rolloffs will not be used for soil/debris storage.

Soils/debris will be staged in such an order and manner to allow continuous excavation and simultaneously maintain additional work areas that may be required for non-scheduled segregation, resampling, etc. Actual staging locations and number will be based on site specific conditions.

3.2 Post Excavation

After all excavation activities have been concluded, the excavated pit will be backfilled and mechanically compacted to existing surface grade. The back fill material will be chosen based on both workability and cost. The Franklin Brick rail spur will be replaced and the wheel stop re-installed in its original position.

3.3 Stockpile/Soils Sampling

Two four ounce samples will be collected for each 15 yd³ excavated and stockpiled, resulting in 14 samples per 115 yd³ stockpile. Seven (7) of the samples will be composited to make one (1) sample per stockpile for waste disposal characterization using TCLP, full scan analysis. The additional seven (7) samples will be archived at the selected laboratory for a maximum of 90 days. In the event additional

analysis is required, sufficient sample will be available for another composited sample and corresponding analysis. Sampling and analysis plan modifications may be required to meet specific disposal facility requirements.

No characterization, beyond waste disposal requirement, sampling will be performed in conjunction with this removal action. Sampling will be continuous during all excavation/stockpiling activities. Samples will be placed on ice and submitted to the laboratory on a daily basis to expedite off site disposal.

3.4 Decontamination/Excavation Water

Any waters generated during excavation activities will be collected in an appropriate vessel. The accumulated fluids will be sampled for waste disposal analysis for off-site disposal as appropriate and in accordance with U.S. EPA's off-site policy.

3.5 Debris/Soils Loading

Soils and debris will be loaded on trucks for transportation to an appropriate disposal facility following TCLP analysis and manifesting. The trucks used for transportation will have a minimum of twenty (20) cubic yards capacity and 40,000 lb or greater weight limitation.

It is recommended that the trucks are constructed with steel beds, not aluminum, to prevent potential damage to the truck body due to large boulders and other debris. Trucks will be loaded in the designated loading area. A maximum of two trucks will be allowed on site for loading at any one time.

Loading will be performed with a track loader in a manner and an order consistent with laboratory disposal analysis. Trucks will not be decontaminated prior to leaving the site as they will not enter the exclusion zone. To the extent practicable, trucks used for disposal transportation will be delegated to only Saad Site activities and will not be allowed to perform similar simultaneous duties for other clients.

Time/trip tickets will be maintained by the Project Manager. Loading activities will occur at specific intervals to correlate with maximizing loading/disposal efficiency based on disposal analysis and continue until all approved waste has been removed from the site. It is anticipated that loading/disposal activities will occur at least once per week dependent on analysis, disposal firm approvals, and truck availability.

3.6 Other Considerations

During excavation, drums and/or drum bones may be encountered. In the event that drums are found, the site personnel will initiate the appropriate actions and activities previously submitted per the 1992 RA/FI Phase II Work Plan, Section 4.0, Subsection 4.2.2, 4.2.4, 4.3.3, 4.3.6 and 4.4.1. Figure 4-2 of the Phase II Work Plan, the decision tree for characterization/classification of excavated drums, will be used for drum project activity excavation. All applicable sections of the revised health and safety plan previously submitted in the 1992 FA/FI, Phase II, Work Plan for drum activities will be implemented.

4.0 DISPOSAL

Disposal of materials resulting from implementation of this Work Plan will be coordinated with the U.S. EPA and TDEC, and conducted in accordance with disposal facility requirements. Disposal will be performed in compliance with U.S. EPA's off-site policy.

5.0 SCHEDULE

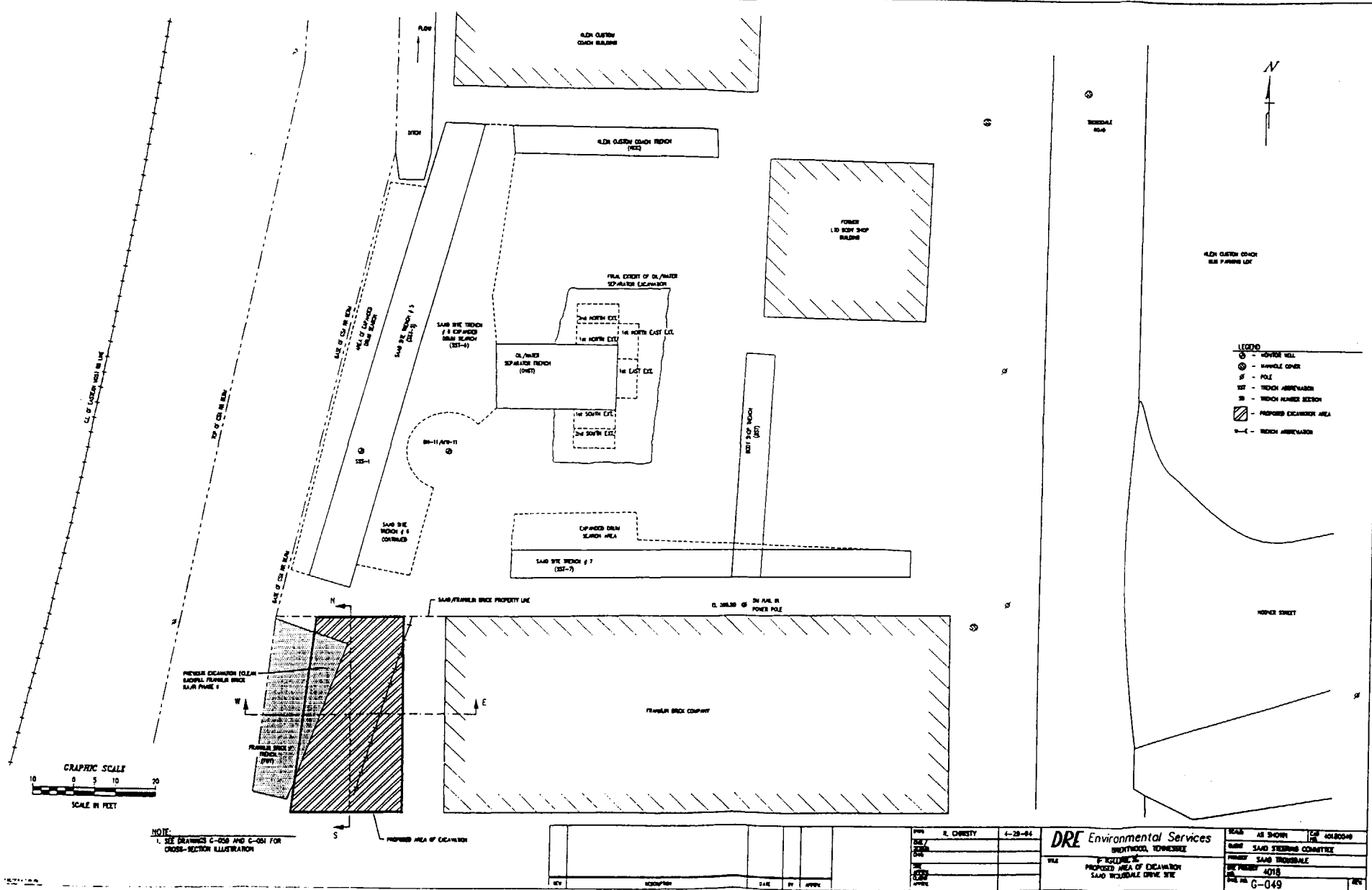
Removal project activities are to be initiated as provided in Section 2.1. All time is estimated on a five-day work week. The schedule will be adjusted in accordance with delays caused by force majeure as defined in Section VI-26 of the AOC and as appropriate in the event of any of the following schedule contingencies.

- Additional activities associated with debris segregation required by either the waste disposal facility or waste hauler.
- Inadequate availability and number of waste haulers contracted for disposal transportation.
- Additional waste disposal sampling.
- Waste disposal schedule changes due to disposal facility requirements and capacity issues, including those occasioned by having to treat or dispose of any excavated material or removed groundwater as a hazardous waste.
- Weather that does not permit work to be performed.

The tentative schedule is as follows (days are working days):

Mobilization - 5.0 days	(1 week)
Excavation/stockpiling/sampling - 60 days	(12 weeks)
Disposal (continuous with site activities) - 70 days	(14 weeks)
Demobilization - 5.0 days	(1 week)
RA/FI Phase III Report - (Post Disposal) - 30 days	(6 weeks)
Total anticipated time for site activities - 75 days	(15 weeks)

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**Saad Trousdale Drive Site
Phase III Removal Action Work Plan
Date: 8 November 1994**

Pursuant to the Administrative Order by Consent Section VI, Paragraph 17 (October 1994) and in accordance with the approved Phase III Removal Action Work Plan (Section 3.0), the following defines the agreed upon modifications to the work:

The lateral extent/direction of the excavation will be modified as follows:

The excavation moving south from the Saad property will be terminated 17 feet from the southerly endpoint defined in the approved Work Plan. The excavation will be continued to the north from the Saad southern property boundary for 17 feet or at the direction of the OSC up to 27 feet, maintaining the dimensions, off-sets, volume criteria, and other limitations specified in the Work Plan.

<p><i>Lidelle W. Cobb for Fred Stroud</i> USEPA OSC</p>	<p><i>Bennie L. Underwood for</i> Saad Site Steering Committee Project Coordinator</p>
---	--

Work Modification No. 2
Saad Trousdale Drive Site
Phase III Removal Action Work Plan
Date: 15 November 1994

Pursuant to the Administrative Order by Consent Section VI, Paragraph 17 (October 1994) and in accordance with the approved Phase III Removal Action Work Plan (Section 3.0), the following defines the agreed upon modifications to the work:

The vertical extent of the excavation will be modified as follows:

The excavation moving north from the Saad property southern boundary will be extended to a vertical limit (depth) not to exceed ^{(17) FLS} ~~16~~ ft bls. as directed by the OSC. The excavation will be continued longitudinally to the north from the Saad southern property boundary for up to 27 feet depending on the OSC's depth direction while maintaining the dimensions, off-sets, volume criteria, and other limitations specified in the Work Plan.


USEPA OSC


Saad Site Steering Committee
Project Coordinator

APPENDIX 2

2 4 1 3

**HEALTH AND SAFETY PLAN
AND CONTINGENCY PLAN
SAAD - TROUSDALE DRIVE SITE
NASHVILLE, TENNESSEE**

Prepared by:
Signal Environmental Services, Inc.
900 Manufacturers Road, Second Floor
Chattanooga, Tennessee 37405

October 1994

The following employees have been briefed on the Health and Safety Plan and given copies.

Greg V. Veal
Signature

GREG V. VEAL
Printed Name

James W. Griffiths JR
Signature

James W. Griffiths JR
Printed Name

Shae A Hager
Signature

Shae A Hager
Printed Name

Douglas E Tate
Signature

Douglas E TATE
Printed Name

John Scott
Signature

John Scott
Printed Name

Joel C. Morrison
Signature

Joel C. Morrison
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Ron Higgins
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Ron Higgins
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MICHAEL R. MATTHEWS
Signature

MICHAEL R. MATTHEWS
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Printed Name



**Saad - Trousdale Site
Site Remediation Program
Health and Safety Plan**

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1.0 Introduction

This section of the Site Health and Safety Plan (HASP) document defines general applicability and general responsibilities with respect to compliance with Health and Safety programs.

1.1 Scope and Applicability of the Site Health and Safety Plan

The purpose of this Site Health and Safety Plan is to define the requirements and designate protocols to be followed at the Site during remediation activities. Applicability extends to all Governmental employees, contractors, subcontractors, and visitors.

All personnel on site, including contractors and subcontractors, shall be informed of the site emergency response procedures and any potential fire, explosion, health, or safety hazards of the operation. This HASP summarizes those hazards in Table 3.1 and defines protective measures planned for the site.

This plan must be reviewed and an agreement to comply with the requirements must be signed by all personnel prior to entering the exclusion zone or the contamination reduction zone. Any changes to this plan must be documented and justified per Site Safety log (Appendix A).

During development of this plan, consideration was given to current safety standards as defined by EPA/OSHA/NIOSH, health effects and standards for known contaminants, and procedures designed to account for the potential for exposure to unknown substances. Specifically, the following reference sources have been consulted:

- OSHA 29 CFR 1910.120 and EPA 40 CFR 311
- U.S. EPA, OERR ERT Standard Operating Guides
- NIOSH/OSHA/USCG/EPA Occupational Health and Safety Guidance Document for Hazardous Waste Site Activities
- (ACGIH) Threshold Limit Values for Chemical Substances
- OSHA 29 CFR 1926
- OSHA 29 CFR 1910.1000 Air Contaminants - Permissible Exposure Limits
- NIOSH Pocket Guide to Chemical Hazards, June 1990
- Proctor, N.H., et al, Chemical Hazards of the Workplace, Lippincott, Philadelphia, 1988
- OSHA 29 CFR 1910.1200 Hazard Communication Standard



- Signal Environmental Services, Inc., Health and Safety Policy and Procedures Manual

1.2 Visitors

All visitors entering the contamination reduction zone and/or the exclusion zone at the site will be required to read and verify compliance with the provisions of this HASP. In addition, visitors will be expected to comply with relevant OSHA requirements such as medical monitoring (Sec. 6.0), Training (Sec. 4.0), and respiratory protection (if applicable). Visitors will also be expected to provide their own protective equipment. Visitors will be properly decontaminated prior to exiting the worksite.

In the event that a visitor does not adhere to the provision of the HASP, he/she will be requested to leave the work area. All non-conformance incidences will be recorded in the site log.

2.0 Key Personnel/Identification of the Health and Safety

2.1 Key Personnel

The following personnel and organizations are critical to the planned activities at the Site. The organizational structure will be reviewed and updated periodically by the site supervisor.

Signal Environmental Services, Inc.

Signal Environmental Services, Inc. is the Remediation Contractor on the job.

de maximis

demaximis, Inc. is contract administration.

2.2 Site Specific Health and Safety Personnel

The Site Health and Safety Officer (HSO) has total responsibility for ensuring that the following provisions of this HASP are adequate and implemented in the field. Changing field conditions may require decisions to be made concerning adequate protection programs. Therefore, it is vital that personnel assigned as HSO be experienced and meet the additional training requirements specified by OSHA in 29 CFR 1910.120 (See Section 4.0 of this HASP). The HSO is also responsible for

conducting site inspections on a regular basis in order to ensure the effectiveness of this plan. A morning briefing will be held at the beginning of each work day to reiterate safety practices, to designate the necessary safety equipment, and to review the day's work.

2.3 Organizational Responsibility

Signal Environmental Services, Inc., is the Remediation Contractor for the Saad - Trousdale Project. Signal is responsible for all Physical operations on site, including the health and safety of its workers.

3.0 Task/Operation Safety and Health Risk Analysis

3.1 Historical Overview of the Site

This HASP defines the hazards and methods to protect personnel from those hazards as identified in the background information. A thorough overview of historical information concerning the Site is available from de maximis, Inc. Remediation of property north of the site encountered numerous chemicals that are not suspected to be present but will be the reason for the continued air sampling. These chemicals are presented in Appendix B.

3.2 Task by Task Risk Analysis

The evaluation of hazards is based upon the knowledge of site background.

The following subsections describe each task/ operation in terms of the specific hazards associated with it. In addition, the protective measures to be implemented during completion of those operations are also identified.

The on-site work consists of the following tasks:

- I. Mobilization of construction facilities, materials, equipment, plant and personnel necessary to perform Works.
- II. Site preparation including:
 - provision of utilities;

- locating and maintaining all underground and above ground facilities which may be affected by the Works;
 - Supply and installation of temporary fencing, barricades and warning signs to delineate and separate work areas;
 - Construction of equipment and personnel decontamination facilities;
 - Installation of weigh scale; and
 - Removal of railroad tracks.
- III. Installation of shoring next to access road.
- IV. Excavation contaminated field tiles, granular bedding and associated soils.
- V. Backfilling excavations.
- VI. Loading of haul vehicles with on-site soils from the waste staging pad for off-site transportation.
- VII. Site restoration.
- VIII. Project closeout including decontamination and demobilization.

Table 3.1
Task Analysis
Chemical Hazards of Concern

Task	Chemical Hazard	Media	Concentration (ppm)	Route of Exposure
Mobilization	None	N/A	N/A	N/A
Site Preparation	None	N/A	N/A	N/A
Installation of Shoring	Polychlorinated Biphenyls (PCBs)	Soil	ND* - >500 ppm	Ingestion Inhalation
Excavation	PCBs	Soil	ND - >500 ppm	Ingestion Inhalation
Backfilling	None	N/A	N/A	N/A
Loading of Haul Vehicles	PCBs	Soil	ND - >500 ppm	Ingestion Inhalation
Site Restoration	None	N/A	N/A	N/A

Project Closeout	None	N/A	N/A	N/A
Track Removal	None	N/A	N/A	N/A

*ND- None Detected

N/A - Not Applicable

3.3 Task Hazard Descriptions

3.3.1 Mobilization

General hazards associated with mobilization are:

- Back strain from lifting
- Vehicle accidents

Hazard Prevention

- Prevent back strain by using proper lifting techniques
- Seatbelts will be mandatory
- Operators are required to drive defensively

3.3.2 Site Preparation

General hazards encountered during site preparation include the following:

- Back strain from clearing vegetation.
- Driving vehicles, placing trailers, and collecting rubbish on uneven surfaces creates the possibility of the vehicle rolling, getting stuck in mud or ditches.
- Accidents due to vehicles getting flat tires or striking other objects.
- Crushing or pinching hazard due to trailer placement.
- Several types of hazards can be associated with utility hook-up depending on the particular work activity. Construction of temporary poles for electrical and/or telephone lines can disturb potentially contaminated soils.
- Rhus dermatitis (poison ivy, white sumac, etc.).



- Cold stress and heat stress

Hazard Prevention

- Back strain can be prevented by frequent breaks in routine. Use slow, even movements and proper lifting techniques (i.e., with the legs). Work gloves will reduce the incidence of hand blistering and injury associated with clearing vegetation.
- Proper vehicle maintenance will prevent avoidable vehicle breakdown in the field. In order to minimize accidents from uneven terrain, a site surveillance should be performed on foot to choose a clear driving path.
- Seatbelts should be worn at all times.
- At a minimum, all heavy equipment shall have the safety features outlined in OSHA 29 CFR 1910/1926 Subpart O.
- Heavy equipment operators should have proper training and experience, and documentation of both. The general provisions of 1910/1926 would apply.
- Hazards associated with the particular utility should be anticipated and proper measures should be undertaken by the subcontractor employer. General provisions of 29 CFR 1910/1926 Subpart K, should be implemented in order to prevent electrical hazards.
- Rhus dermatitis can be prevented by training employees to recognize poisonous plants, protective clothing, and convenient wash facilities.
- Cold stress and heat stress are prevented by training employees to recognize symptoms, to observe preventive measures such as wearing proper clothing; by providing acclimatization periods for unacclimatized employees; by providing adequate rest areas (Sections 5.7.1 and 5.7.2), and by medical surveillance (Section 6).

3.3.3 Installation of Shoring

This section is not currently applicable to this health and safety plan. If necessary, it will be covered in the shoring plan.

3.3.4 Excavation

General hazards encountered during excavation include the following:

- Cave-ins

- Falls
- Confined space potential
- Heavy machinery accidents

Hazard Prevention

- The excavation will be 2:1 sloped to the bottom where practical. In other areas the excavation will be shored.
- This opening generally does not have confined space potential due to the opening of the excavation and the shallow excavation. The confined areas will be monitored for LEL, O₂ and CO as well as volatile organics with portable survey instruments. Trenching will be conducted in a trench box. The requirements of 29 CFR 1910.146 will be followed for all identified permit required confined spaces.
- All heavy equipment will be equipped with back-up warning devices. Operators will be reminded of safety procedures daily.
- Proper vehicle maintenance will prevent avoidable vehicle breakdown in the field. In order to minimize accidents from uneven terrain, a site surveillance should be performed on foot to choose a clear driving path.
- Seatbelts should be worn at all times.
- At a minimum, all heavy equipment shall have the safety features outlined in OSHA 29 CFR 1910/1926 Subpart O.
- Heavy equipment operators should have proper training and experience, and documentation of both. The general provisions of 1910/1926 would apply.

3.3.5 Backfilling

General hazards associated with backfilling include the following:

- Heavy equipment accidents
- Vehicle accidents

Hazard Prevention

- All heavy equipment will be equipped with back-up warning devices. Operators will be reminded of safety procedures daily.

- Proper vehicle maintenance will prevent avoidable vehicle breakdown in the field. In order to minimize accidents from uneven terrain, a site surveillance should be performed on foot to choose a clear driving path.
- Seatbelts should be worn at all times.
- At a minimum, all heavy equipment shall have the features outlined in OSHA 29 CFR 1910/1926 Subpart O.
- Heavy equipment operators should have proper training and experience, and documentation of both. The general provisions of 1910/1926 would apply.

3.3.6 Loading of Haul Vehicles

General hazards associated with loading of haul vehicles are:

- Heavy equipment accidents

Hazard Prevention

- Proper vehicle maintenance will prevent avoidable vehicle breakdown in the field. In order to minimize accidents from uneven terrain, a site surveillance should be performed on foot to choose a clear driving path.
- Seatbelts should be worn at all times.
- At a minimum, all heavy equipment shall have the safety features outlined in OSHA 29 CFR 1910/1926 Subpart O.
- Heavy equipment operators should have proper training and experience, and documentation of both. The general provisions of 1910/1926 would apply.

3.3.7 Site Restoration

General hazards associated with site restoration are as follows:

- Back straining from lifting
- Vehicle accidents

Hazard Prevention

- Prevent back strain by using proper lifting techniques.
- Proper vehicle maintenance will prevent avoidable vehicle breakdown in the field. In order to minimize accidents from uneven terrain, a site surveillance should be performed on foot to choose a clear driving path.
- Seatbelts should be worn at all times.

3.3.8 Use of Cutting Torches

General hazards are:

- Improper eye protection from radiation
- Fire hazards
- Burns
- Explosions
- Breathing of fumes

Hazard Prevention

- Minimum - protective goggles or face shield with eye protection-shaded filter lenses are provided in Appendix D. This appendix also describes other issues of safety which may need to be addressed.
- All moveable fire hazards will be removed or guards placed to confine heat and sparks
- Fire extinguisher will be ready for instant use
- Hot work permit needs to be issued
- No torch use will be permitted in areas with explosive atmospheres
- All drums or vessels will be blanked or disconnected
- Protective clothing will be used to protect hands and body from sparks
- Exhaust fans will be used if ventilation is insufficient to remove toxic fumes
- No pressure exceeding 15 psig or 30 psia
- Only approved apparatus will be used
- Compressed gas cylinders will be properly marked for gas content
- Cylinders will be kept away from actual cutting operation or other heat sources
- Oxygen will be kept from combustible material and oil or grease

- Valve protection will always be in place
- Valves will be kept closed unless in use
- Cylinders will be secured to prevent them from falling or rolling

3.3.9 Project Closeout

General hazards associated with the project closeout are as follows:

- Back straining from lifting
- Vehicle accidents

Hazard Prevention

- Prevent back strain by using proper lifting techniques.
- Proper vehicle maintenance will prevent avoidable vehicle breakdown in the field. In order to minimize accidents from uneven terrain, a site surveillance should be performed on foot to choose a clear driving path.
- Seatbelts should be worn at all times.

3.4 Chemical and Physical Hazards

3.4.1 General Description

The only chemical hazards present are Polychlorinated Byphenols (Specifically Aroclor 1242 and Aroclor 1260). Table 3.2 contains some characteristics of the compounds of concern.

Table 3.2
Chemical Characteristics

Compound	Odor	Flashpoint (°F)	PEL (mg/m ³)	IDLH (mg/m ³)	Comments
Aroclor 1242	Mild Oil Odor	N.E.	1.0	10.0	Irritates eyes, chloroacne, Liver damage

Compound	Odor	Flashpoint (°F)	PEL (mg/m ³)	IDLH (mg/m ³)	Comments
Aroclor 1260	Mild Oil Odor	N.E.	0.5	5.0	Irritated eyes, Chloroacne, Liver damage

N.E. - None Established

3.4.2 Toxicity Hazards

These chemicals may be hazardous by skin absorption or inhalation of these aerosols and liquids. Permissible exposure limits (PELs) are shown in Table 3.2. Airborne concentrations will be kept within these limits.

3.4.3 Fire/Explosion Hazards

Fire hazards associated with PCB compounds are minimal.

3.4.4 First Aid

If any of these chemicals come into contact with the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately. Contact lenses should not be worn when working. If these chemicals come in contact with the skin, promptly wash the contaminated skin with soap and water. If these chemicals penetrate through the clothing, promptly remove the clothing and wash the skin with soap and water. Get medical attention promptly. If a person breathes in large amounts of the chemical aerosols, move the exposed person to fresh air at once. Once removed from area, get medical attention immediately. If these chemicals have been swallowed, get medical attention immediately.

3.5 Site Safety Equipment

A listing of on-site safety equipment is provided in Appendix C.



4.0 Personnel Training Requirements

Consistent with OSHA's 29 CFR 1910.120 regulation covering Hazardous Waste Operations and Emergency Response, all site personnel are required to be trained in accordance with the standard. At a minimum all personnel are required to be trained to recognize the hazards on-site, the provision of this HASP, and the responsible personnel.

4.1 Reassignment and Annual Refresher Training

Prior to arrival on site, each employer will be responsible for certifying that his/her employees meet the requirements of reassignment training, consistent with 29 CFR 1910.120 paragraph (e)(3). The employer will provide a document certifying that each general site worker has received 40 hours of instruction off the site, and 24 hours of training for any workers who are on site only occasionally for a specific task. If an individual employee has work experience and/or training that is equivalent to that provided in the initial training, an employer may waive the 40-hour training so long as that equivalent experience is documented or certified. All personnel must also receive 8 hours of refresher training annually.

4.2 Site Supervisor's Training

Consistent with OSHA 29 CFR 1910.120 paragraph (e)(8), individuals designated as site supervisors require an additional 8 hours of training.

4.3 Training and Briefing Topics

The following items will be discussed by a qualified individual at the site pre-entry briefing(s) or periodic site briefings.

Training	Frequency
Confined space entry procedure, Sec. 11.0	Periodic
Emergency response plan, Sec. 10.0; [29 CFR 1910.120(l)]	Periodic
Engineering controls and work practices	Periodic

Training	Frequency
Chemical hazards, Table 3.1	Periodic
Overhead and ground utilities	Periodic
Personal protective equipment, Sec. 5.0	Periodic
Physical hazards, Table 3.2	Periodic
Respiratory protection, Sec. 5.8	Periodic
Training requirements, Sec. 4.0; [29 CFR 1910.120(e)]	Periodic

5.0 Personal Protective Equipment to be Used

This section describes the general requirements of the EPA designated Levels of Protection (A-D), and the specific levels of protection required for each task at the Site. All respiratory protection will comply with Signal's Respiratory Protection Program as required by OSHA 1910.134. Available site safety equipment list is provided in Appendix C.

5.1 Levels of Protection

Personnel wear protective equipment when response activities involve known or suspected atmospheric contamination vapors, gases, or particulates may be generated by site activities, or when direct contact with skin-affecting substances may occur. Full facepiece respirators protect lungs, gastrointestinal tract, and eyes against airborne toxicants. Chemical-resistant clothing protects the skin from contact with skin-destructive and absorbable chemicals.

The specific levels of protection and necessary components for each have been divided into four categories according to the degrees of protection afforded:

- Level A Should be worn when the highest level of respiratory, skin, and eye protection is needed.
- Level B Should be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection. Level B is a minimum level of choice when encountering unknown environments.

- Level C Should be worn when criteria for using air-purifying respirators are met, and a lesser level of skin protection is needed.
- Level D Should be worn only as a work uniform and not in any area with respiratory hazards. it provides minimal protection against chemical hazards.

Modifications to these levels are permitted and routinely employed during site work activities to maximize efficiency. For example, Level C respiratory protection and Level D skin protection may be required at the same task. Likewise, the type of chemical protective ensemble (i.e., material, format) will depend upon contaminants and degrees of contact.

The Level of Protection selected is based upon the following:

- Type and measured concentration of the chemical substance in the ambient atmosphere and its toxicity.
- Potential for exposure to substances in air, liquids, or other direct contact with material due to work being done.
- Knowledge of chemicals on-site along with properties such as toxicity, route of exposure, and contaminant matrix.

In situations where the type of chemical, concentration, and possibilities of contact are not known, the appropriate Level of Protection must be selected based on professional experience and judgement until the hazards can be better identified.

5.2 Level A Personal Protective Equipment

- Supplied-air respirator approved by the Mine Safety and Health Administration (MSHA) and National Institute for Occupational Safety and Health (NIOSH). Respirators may be positive pressure-demand, self-contained breathing apparatus (SCBA), or positive pressure-demand, airline respirator (with escape bottle for Immediately Dangerous to Life or Health (IDLH) or potential for IDLH atmosphere)
- Fully encapsulating chemical resistant suit
- Long cotton underwear
- Gloves (inner)
- Boots, chemical resistant, steel toed and shank (depending on suit construction, worn over or under suit boot)

- Hard hat (under suit)
- Disposable gloves and boot covers (worn over fully encapsulating suit)
- 2-way Radio communication (intrinsically safe)

5.3 Level B Personal Protective Equipment

- Supplied-air Respirator (MSHA/NIOSH approved). Respirators may be positive pressure-demand, self-contained breathing apparatus (SCBA), or positive pressure-demand, airline respirator (with escape bottle for IDLH or potential IDLH atmosphere)
- Chemical-resistant clothing (coveralls and long-sleeved jacket; hooded, one or two-piece chemical-splash suit; disposable chemical-resistant, one-piece suits)
- Coveralls
- Gloves (outer), chemical-resistant
- Gloves (inner), chemical-resistant
- Boots (outer), chemical-resistant, steel toe and shank
- Hard hat (face shield)
- 2-way radio communication (intrinsically safe)

5.4 Level C Personal Protective Equipment

- Air-purifying respirator, full- or half-face, cartridge-equipped (MSHA/NIOSH approved)
- Chemical-resistant clothing (coveralls; hooded, one-piece or two-piece chemical splash suit; chemical-resistant hood and apron; disposable chemical-resistant coveralls)
- Coveralls
- Gloves (outer), chemical-resistant
- Gloves (inner), chemical-resistant
- Boots (outer), chemical-resistant, steel toe and shank
- Hard hat (face shield)
- 2-way radio communication (intrinsically safe)

5.5 Level D Personal Protective Equipment

- Coveralls
- Gloves

- Boots/shoes, leather or chemical resistant, steel toe and shank
- Safety glasses
- Hard hat

5.6 Reassessment of Protective Program

The Level of Protection provided by PPE selection shall be upgraded or downgraded based upon a change in site conditions or findings of investigations.

When a significant change occurs, the hazards should be reassessed. Some indicators of the need for reassessment are:

- Commencement of a new work phase, such as the start of drum sampling or work that begins on a different portion of the site.
- Change in job tasks during a work phase.
- Change of season/weather.
- When temperature extremes or individual medical considerations limit the effectiveness of PPE.
- Contaminants other than those previously identified are encountered.
- Change in ambient levels of contaminants.
- Change in work scope which effects the degree of contact with contaminants.

5.7 Work Mission Duration

Before the workers actually begin work in their PPE ensembles the anticipated duration of the work mission should be established. Several factors limit mission length, including:

- Air supply consumption (SCBA use).
- Suit/Ensemble permeation and penetration rates for chemicals (section 5.8).
- Ambient temperature and weather conditions (heat stress/cold stress).
- Capacity of personnel to work in PPE.



5.7.1 Monitoring of Worker Heat Stress

When workers are anticipated to work in hot environments, the following measures will be taken to reduce the chance of injury to the workers:

- Workers will be reminded to pace themselves and take short rest breaks as approved by the Health and Safety Officer.
- Cool potable water will be made available.
- Rest breaks will be provided in areas which are cooler than the work area.
- Wind velocity, air temperature, radiant heat temperature and humidity will be continuously monitored.

5.7.2 Monitoring of worker Cold Stress

When workers are anticipated to work in cold environments, the following measures will be taken to reduce the chance of injury to the workers:

- Workers will be reminded to wear insulated clothing under their PPE.
- Workers will take short rest breaks as approved by the Health and Safety Officer.
- Rest breaks will be provided in areas which are warmer than the work area.
- Wind velocity, air temperature, radiant heat temperature and humidity will be continuously monitored.

5.8 Chemical Resistance and Integrity of Protective Material

The following specific clothing materials and levels of protection are recommended for the site tasks:

5.8.1 Mobilization - (Level D)

- Boots/Gloves - Steel Toe
- Outer Gloves - Work Gloves
- Outer Garment/Coveralls - Work Uniform

5.8.2 Site Preparation - (Level D)

- Boots/Boot Covers - Steel Toe
- Outer Gloves - Work Gloves
- Outer Garment/Coveralls - Work Uniform

5.8.3 Backfilling - (Level D)

- Boots/Boot Covers - Steel Toe
- Outer Gloves - Work Gloves
- Outer Garment/Coveralls - Work Uniform

5.8.4 Site Restoration - (Level D)

- Boots/Boot Covers - Steel Toe
- Outer Gloves - Work Gloves
- Outer Garment/Coveralls - Work Uniform

5.8.5 Project Closeout - (Level D)

- Boots/Boot Covers - Steel Toe
- Outer Gloves - Work Gloves
- Outer Garment/Coveralls - Work Uniform

5.8.6 Excavation in Contaminated Areas - (Level C)

- Outer Gloves - Butyl
- Outer Garment/Coveralls - Tyvek
- Combination Organic Vapor and Particulate Cartridges

5.9 SOP for Respiratory Protection Devices

The following subsections define standard operating procedures for air purifying respirators and self-contained breathing apparatus.

5.9.1 Cleaning and Disinfecting Air Purifying Respirators

APRs in routine use should be cleaned and disinfected at least daily. Where respirators are used only occasionally or when they are in storage, the cleaning interval is weekly or monthly, as appropriate.

Daily Cleaning Procedure

The steps to be followed for cleaning and disinfecting daily are as follows:

- *Respirator Disassembly:* Respirators are taken to a clean location where the filters, cartridges or canisters are removed, damaged to prevent accidental reuse, and discarded. For through cleaning, the inhalation and exhalation valves, speaking diaphragm, and any hoses are removed.
- *Cleaning:* In most instances, the cleaning and disinfecting solution by the manufacturer is used and dissolved in warm water in an appropriate tub. Using gloves, the respirator is placed in the tub and swirled for a few seconds. A soft brush may be used to facilitate cleaning.
- *Rinsing:* The cleaned and disinfected respirators are rinsed thoroughly in water to remove all traces of detergent and disinfectant. This is very important for preventing dermatitis.
- *Drying:* The respirators may be allowed to dry in room air on a clean surface. They may also be hung upside down like drying clothes, but care must be taken to not damage or distort the facepieces.
- *Reassembly and Inspection:* The clean, dry respirator facepieces should be reassembled and inspected in an area separate from the disassembly area to avoid contamination. Special emphasis should be given to inspecting the respirators for detergent or soap residue left by inadequate rinsing. This appears most often under the seat of the exhalation valve, and can cause valve leakage or sticking.

After Routine Use in Exclusion Zone

The steps to be taken for cleaning and disinfecting in the field are as follows:

- The mask may be washed/rinsed with soap and water.
- At a minimum, the mask should be wiped with disinfectant wipes (benzoalkaliod or isoproyl alcohol), and allowed to air dry in a clean area.

5.9.2 APR Inspection and Checkouts

- Each user of an APR will be fit-tested for that unit.
- Visually inspect the entire unit for any obvious damages, defects, or deteriorated rubber.
- Make sure that the facepiece harness is not damaged. The serrated portion of the harness can fragment which will prevent proper face seal adjustment.
- Inspect lens for damage and proper seal in facepiece.
- Exhalation Valve - pull off plastic cover and check valve for debris or for tears in the neoprene valve (which could cause leakage).
- Inhalation Valve (two) - screw off cartridges/canisters and visually inspect neoprene valves for tears. Make sure that the inhalation valves and cartridge receptacle gaskets are in place.
- Make sure a protective cover lens is attached to the lens.
- Make sure the speaking diaphragm retainer ring is hand tight.
- Make sure that you have the correct cartridge.
- Don and perform negative pressure test.

5.9.3 Storage of Air Purifying Respirators

OSHA requires that respirators be stored against dust, sunlight, heat, extreme cold, excessive moisture, damaging chemicals, and mechanical damage.

Storage of respirators should be in a clean area, minimizing the chance for contamination or unsanitary conditions.

5.10 SOP for Personal Protective Equipment (PPE)

5.10.1 Inspection

Proper inspection of PPE features several sequences of inspection depending upon specific articles of PPE and its frequency of use. The different levels of inspection are as follows:

- Inspection and operational testing of equipment received from factory or distributor.
- Inspection of equipment as it is issued to workers.
- Inspection after use or training and prior to maintenance.
- Periodic inspection of stored equipment.

- Periodic inspection when a question arises concerning the appropriateness of the selected equipment, or when problems with similar equipment arise.

The primary inspection of PPE in use for activities at the Site occur prior to immediate use and will be conducted by the user. This ensures that the specific device or article has been checked-out by the user and that the user is familiar with its use.

Table 5.1 Sample PPE Inspection Checklists

Clothing

Before use:

- Determine that the clothing material is correct for the specified task at hand.
- Visually inspect for imperfect seams, non-uniform coatings, tears, and malfunctioning closures.
- Hold up to light and check for pinholes.
- Flex product, observing for cracks and other signs of shelf deterioration.
- If the product has been used previously, inspect inside and out for signs of chemical attack, resulting in discoloration, swelling and stiffness.

During use:

- Evidence of chemical attack such as discoloration, swelling, stiffness, and softening. However, keep in mind that chemical permeation can occur without any visible effects.
- Closure failure.
- Tears.
- Punctures.
- Seam Discontinuities.

Gloves

Before use:

- Visually inspect for imperfect seams, tears, and non-uniform coatings. Pressurize glove with air and listen for pin-hole leaks.

6.0 Medical Surveillance Requirements

Medical monitoring programs are designed to track the physical condition of employees on a regular basis, as well as survey pre-employment or baseline conditions prior to potential exposures.

6.1 Baseline or Reassignment Monitoring

Prior to being assigned to a hazardous or potentially hazardous activity involving exposure to toxic materials, employees must receive a reassignment or baseline physical. The content of the physical is to be determined by the employer's medical consultant. As suggested by NIOSH/OSHA/USCG/EPA's *Occupational Safety & Health Guidance Manual for hazardous Waste Site Activities*, the minimum medical monitoring requirements for work at the Site is as follows:

- Complete medical and work histories.
- Physical examination.
- Pulmonary function tests (FVC and FEV1).
- Chest X-ray (every 2 years).
- EKG.
- Eye examination and visual acuity.
- Audiometry.
- Urinalysis.
- Blood chemistry and heavy metal toxicology.

The reassignment physical will categorize employees as fit-for-duty and enable them to wear the required levels of personal protective devices (including CPC for heat stress).

6.2 Periodic Monitoring

In addition to a baseline physical, all employees require a periodic physical within the last 12 months unless the advising physician believes a shorter interval is appropriate. The employer's medical consultant should prescribe an adequate medical which fulfills OSHA 29 CFR 1910.120 requirements. The reassignment medical outlined above is applicable.



All personnel working in contaminated or potentially contaminated areas at the Site will verify currency (within 12 months) with respect to medical monitoring. This is done by indicating date of last physical on the safety plan agreement form.

6.3 Exposure/Injury/Medical Support

As a follow-up to an injury or possible exposure above established exposure limits, all employees are entitled to and encouraged to seek medical attention and physical testing. Depending upon the type of exposure, it is critical to perform follow-up testing within 24-48 hours. It will be up to the employer's medical consultant to advise the type of test required to accurately monitor for exposure effects.

6.4 Exit Physical

At termination of employment or reassignment to an activity or location which does not represent a risk of exposure to hazardous substances, an employee shall require an exit physical. If his/her last physical was within the last 6 months, the advising medical consultant has the right to determine adequacy and necessity of exit exam.

7.0 Frequency and Types of Air Monitoring/Sampling

This section explains the general concepts of an air monitoring program and specifies the surveillance activities that will take place during project completion at the Site.

The purpose of air monitoring is to identify and quantify airborne contaminants in order to verify and determine the level of worker protection needed. Initial screening for identification is often qualitative, i.e., the contaminant, or the class to which it belongs, is demonstrated to be present but the determination of its concentration (quantification) must await subsequent testing. Two principle approaches are available for identifying and/or quantifying airborne contaminants:

- The onsite use of direct-reading instruments.
- Laboratory analysis of air samples obtained by gas sampling bag, collection media (i.e., filter, sorbent), and/or wet-contaminant collection methods.

All air monitoring data will be recorded in the safety log (Appendix A). Calibration of air monitoring equipment will be performed daily as specified by the manufacturer.

7.1 Direct-Reading Monitoring Instruments

Unlike air sampling devices, which are used to collect samples for subsequent analysis in a laboratory, direct-reading instruments provide information at the time of sampling, enabling rapid decision-making. Data obtained from the real-time monitors are used to assure proper selection of engineering controls, work practices and personal protective equipment. Overall, the instruments may provide an indication of whether or not site personnel are being exposed to concentrations which exceed individual exposure limits or action levels for specific hazardous materials.

Of significant importance, especially during initial entries, is the potential for IDLH conditions, including oxygen deficient atmospheres. Real-time monitors can be useful in identifying any IDLH conditions, toxic levels of airborne contaminants, flammable atmospheres, or radioactive hazards. Periodic monitoring of conditions is critical, especially if exposures may have increased since initial monitoring or if new site activities have commenced.

Table 7.1, excerpted from *Occupational Safety and Health Guidance for Hazardous Waste Site Activities*, provides an overview of available monitoring instrumentation and their specific operating parameters.

Table 7.1 Some Direct-Reading Instruments for General Survey

- **Instrument:** Combustible Gas Indicator (CGI)
Hazard Monitored: Combustible gases and vapors.
Application: Measures the concentration of a combustible gas or vapor.
Detection Method: A filament, usually made of platinum, is heated by burning the combustible gas or vapor. The increase in heat is measured. Gas and vapors are ionized in a flame. A current is produced in proportion to the number of carbon atoms present.
General Care/Maintenance: Recharge or replace battery. Calibrate immediately before use.
Typical Operating Time: Can be used for as long as the battery lasts, or for the recommended intervals between calibrations, whichever is less.
- **Instrument:** Photoionizing Detector (PID)
Example: HNU.



Hazard Monitored: Many organic and some inorganic gases and vapors.

Application: Detects total concentration of many organic and some inorganic gases and vapors. Some identification compounds are possible if more than one probe is measured.

Detection Method: Ionizes molecules using UV radiation; produces a current that is proportional to the number of ions.

General Care/Maintenance: Recharge or replace battery. Regularly clean lamp window. Regularly clean and maintain the instrument and accessories.

Typical Operating Time: 10 hours. 5 hours with strip chart recorder.

- **Instrument:** Oxygen Meter

Hazard Monitored: Oxygen (O_2)

Application: Measures the percentage of O_2 in the air.

Detection Method: Uses an electrical sensor to measure the partial pressure of O_2 in the air, and converts that reading to O_2 concentration.

General Care/Maintenance: Replace detector cell according to manufactures recommendations. Recharge or replace batteries prior to expiration of the specified interval. If the ambient air is more than 0.5% CO_2 , replace the detector cell frequently.

Typical Operating Time: 8-12 hours.

7.2 Specific Contaminants to be Monitored at the Site

The following checklist provides a summary of the contaminants to be monitored for and frequency/schedule of monitoring. The air sampling checklist will serve as a site monitoring plan.

7.2.1 Site Monitoring and Sampling Program

Personal Dust Monitoring

- **Personal Air Pump**

Frequency: Continuous

Duration: Duration of work day

Locations: Personal Dust Samplers shall be provided to employees of highest risk at both the interim storage and contaminated soil excavation areas. A personal dust monitor shall be used by Signal to assess the exposure in the Exclusion Zone during excavation.

Area Dust Monitoring

- Low Volume Air Pump

Frequency: Continuous

Duration: Duration of the work day

Locations: (3) Three low volume air pumps shall be located down wind from the work activities.

In addition (1) one low volume air pump shall be located upwind from the work activities.

Personnel Monitoring Instrument

- Photoionizing Detector (PID)

Frequency: (1) One sample per hour or whenever deemed necessary by HSO.

Duration of Monitoring: 5 minutes

Locations: Samples will be collected inside work areas from the breathing zone.

Environmental Monitoring Instrument

- Photionizing Detector (PID)

Frequency: (1) One sample every two hours

Duration: 5 minutes

Location: (3) three monitors will be stationed downwind from the work activities at the property boundary and (1) one monitor will be stationed upwind from the work activities at the property boundary.

Air Monitoring Instruments

- Combustible Gas Indicator (CGI)

Frequency: HSO determination

Location: Excavation area

- Photoionization Detector (PID)

Frequency: HSO determination

Location: Excavation area

- Oxygen Meter

Frequency: HSO determination

Location: Excavation area

Action Levels

- Explosive atmosphere



Action Level

> 20% LEL

Action

Explosion/fire hazard may develop. Withdraw from area and control source of vapors.

- Oxygen

Action Level

<19.5%

Action

Oxygen deficient atmosphere. Withdraw from area until authorized to return by HSO. NOTE: Combustible gas readings are not valid in atmospheres with <19.5% O₂

>23%

Fire hazard potential. Withdraw from area and consult a fire safety specialist

- Organic gases and vapors

Action Level (ppm)

> Background - 5

5 - 50

> 50

Action

Half- or Full-face respirator available

Full-facepiece air purifying respirator, Level C

Shut-down activities, evaluate the need for level B or higher respiratory protection

- Dust

Action Level (mg/m³)> 150 µg/m³**Action**

Sample shall be analyzed for total PCB concentration

Reporting Format

- Field Notebook

8.0 Site Control Measures

The following section defines measures and procedures for maintaining site control. Site control is an essential component in the implementation of the site and safety program.



8.1 Buddy System

During all activities when some conditions present a risk to personnel, the implementation of a buddy system is mandatory. A buddy system requires at least two people who work as a team; each looking out for each other.

8.2 Site Communication Plan

Successful communications between field teams and contact with personnel in the support zone is essential. Routine communications will be given verbally. A compressed gas airhorn will be used to signal emergency evacuations if needed. Emergency telephone numbers are provided in Section 10.5 and will also be posted in command post. The following communication systems will be available during activities at the Site:

- Compressed Air Horn
- Mobile Telephone

8.3 Work Zone Definition

The three general work zones established at the site are the Exclusion Zone, Contamination Reduction Zone and Support Zone. Figure 8.1 provides a site map with the work zones designated on it.

The Exclusion Zone is defined as the active work area where contamination is either known or likely to be present, or, because of activity, will provide a potential to cause harm to personnel. Entry into the Exclusion Zone requires the use of the designated personal protected equipment.

The Contamination Reduction Zone is defined as the area where personnel conduct personal and equipment decontamination. It is essentially a buffer between contaminated areas and clean areas. Activities to be conducted in this zone will require personal protection as defined in the decontamination plan.

The Support Zone is situated in clean areas where the chance to encounter hazardous materials or conditions is minimal. Personal protective equipment is therefore not required.



8.4 Nearest Medical Assistance

Figure 1 provides a map of the route to the nearest medical facility which can provide emergency care for individuals who may experience an injury or exposure on-site. The route to the hospital should be verified by the HSO, and should be familiar to all site personnel.

8.5 Safe Work Practices

Table 8.1 provides a list of standing orders for the Exclusion Zone. Table 8.2 provides a list of standing orders for the Contamination Reduction Zone.

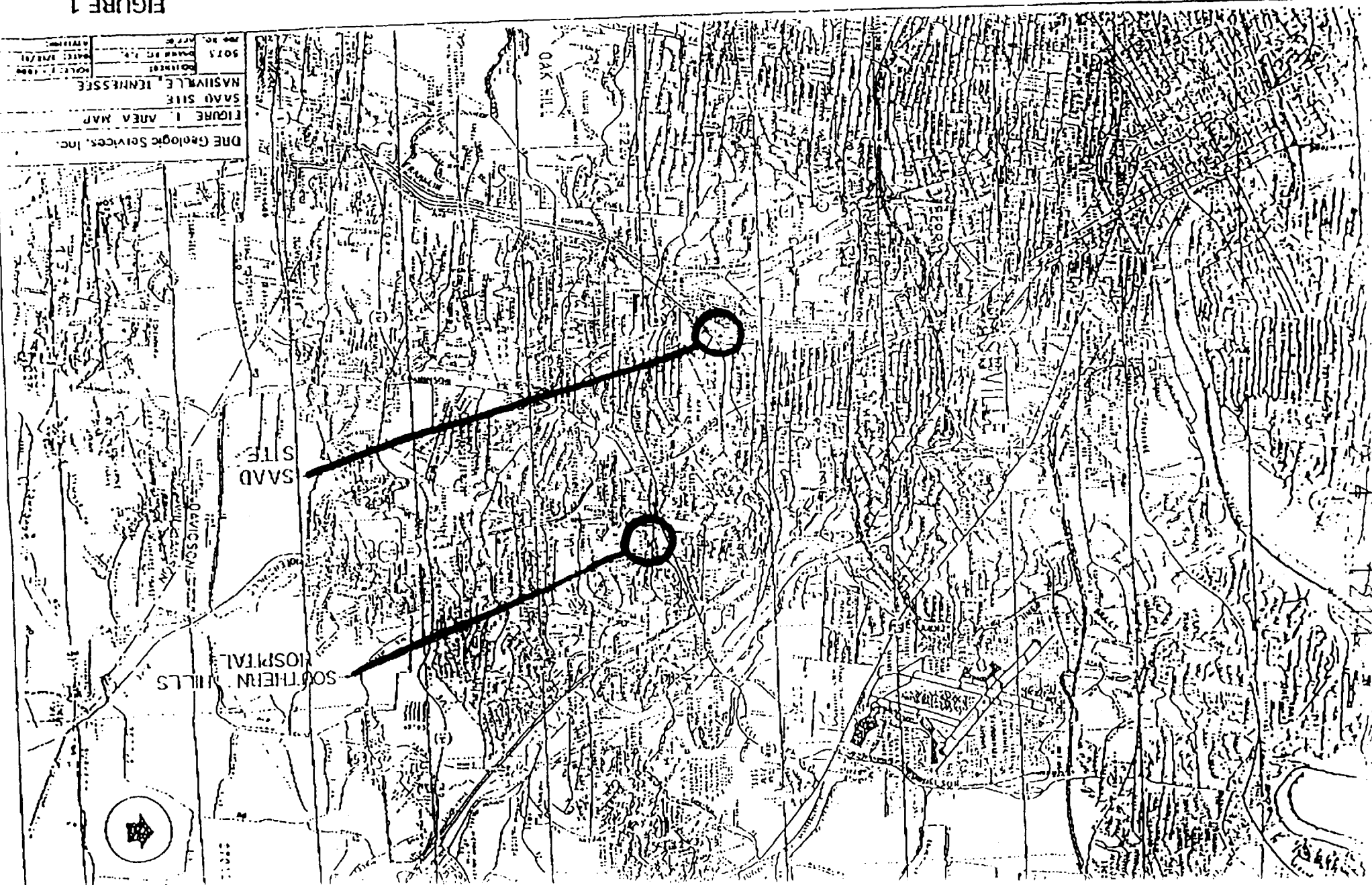
Table 8.1
Standing Orders for Exclusion Zone

- No Smoking, eating, or drinking in this zone.
- No horse play.
- No matches or lighters in this zone.
- Check-in on entrance to this zone.
- Check-out on exit from this zone.
- Implement the communication system.
- Line of sight must be in position.
- Wear the appropriate level of protection as defined in the Safety Plan.
- Persons exiting the exclusion zone will pass through the designated decontamination sequence.
- Persons in this zone will exit immediately upon notification of an emergency by the OSM or HSO.
- Emergency evacuation will be via routes designated by the HSO.

Table 8.2
Standing Orders for Contamination Reduction Zone

- No smoking, eating, or drinking in this zone.
- No horse play.
- No matches or lighters in this zone.
- Wear the appropriate level of protection.

FIGURE 1



9.0 Decontamination Plan

Section 5.8 lists the tasks and specific levels of protection required for each task. Consistent with the levels of protection required, section 9.1 provides a step by step representation of the personnel decontamination process for either level A, B, or C. These procedures should be modified to suit conditions and protective ensembles in use.

9.1 Standard Operating Procedures

Decontamination involves the orderly controlled removal of contaminants. Standard decontamination sequences are presented in tables 9.1 and 9.2. All site personnel should minimize contact with contaminants in order to minimize the need for extensive decontamination.

Table 9.1
Level C Decontamination Steps

Step 1:	Segregated equipment drop
Step 2:	Boot and glove wash
Step 3:	Boot and glove rinse
Step 4:	Tape removal
Step 5:	Boot and glove removal
Step 6:	Suit removal
Step 7:	Hands and face wash
Step 8:	Redress

Figure 9.2
Level D Decontamination Steps

Step 1:	Remove outer garments (i.e., coveralls)
Step 2:	Remove gloves
Step 3:	Wash hands and face



9.2 Levels of Decontamination Protection Required for Personnel

The levels of protection required for personnel assisting with decontamination will be Level D. The Site Safety Officer is responsible for monitoring decontamination procedures and determining their effectiveness.

9.3 Equipment Decontamination

Sampling equipment will be decontaminated in accordance with procedures as defined in the work plan, this page. The sequence of steps required for decontaminating heavy machinery and vehicles can be found in Section 9.3.

9.3.1 Procedure for Decontaminating Heavy Machinery and Vehicles

Heavy machinery/vehicle is to be placed in the wash-down area. The wash-down area will be equipped with a sump to capture and contain all run-off contaminants. Upon completion of pressure wash or steam cleaning, the heavy machinery/vehicle will be removed from the wash down area.

9.4 Disposition of Decontamination Wastes

All equipment and solvents used for decontamination shall be decontaminated or disposed of properly. The wash-down area will be periodically cleaned to remove all sediment build-up. This sediment will be disposed by placing it with the contaminated soil that is being shipped off site. All liquid run-offs collected from decontamination points will be collected then stored in storage tanks until it is treated. Commercial laundries or cleaning establishments that decontaminate protective clothing or equipment shall be informed of the potentially harmful effects of exposures.

9.5 Dust and Particulate Emission Controls

To keep airborne dust and particulate emissions under control, water will be sprayed to moisten the ground surface.

10.0 Emergency Response/Contingency Plan

This section describes contingencies and emergency planning procedures to be implemented at the Site. This plan is compatible with local, state and federal disaster and emergency management plans as appropriate.

10.1 Pre-Emergency Planning

During the site briefings held periodically/daily, all employees will be trained in and reminded of provisions of the emergency response plan, communication systems, and evacuation routes. Table 10.1 identifies the hazardous conditions associated with specific site activities. The plan will be reviewed and revised if necessary, on a regular basis by the HSO. This will ensure that the plan is adequate and consistent with prevailing site conditions.

Table 10.1
Emergency Recognition/Control Measures

Hazard	Prevention/Control	Location
Fire/Explosion	Fire Extinguisher Alarm System Fire Inspection	
Spill	Berms/Dikes Sorbent Material Foams	
Air Release	Water Spray Foam Alarm System Evacuation Routes	



10.2 Personnel Roles and Lines of Authority

The On-Site Manager has primary responsibility for responding to and correcting emergency situations. This includes taking appropriate measures to ensure the safety of site personnel and the public. Possible actions may involve evacuation of personnel from the site area, and evacuating adjacent residents. He/she is additionally responsible for ensuring that corrective measures have been implemented, appropriate authorities notified, and follow-up reports completed. The HSO may be called upon to act on behalf of the site supervisor, and will direct responses to any medical emergency. The individual contractor organizations are responsible for assisting the project manager in his/her mission within the parameters of their scope of work.

10.3 Emergency Recognition/Prevention

Table 3.1 provides a listing of chemical and physical hazards onsite. Additional hazards as a direct result of site activities are listed in Table 10.1 as are prevention and control techniques/mechanisms. Personnel will be familiar with techniques of hazard recognition from reassignment training and site specific briefings. The HSO is responsible for ensuring the prevention devices or equipment is available to personnel.

10.4 Evacuation Routes/Procedures

In the event of an emergency which necessitates an evacuation of the site, the following alarm procedures will be implemented:

- Evacuation alarm notification should be made using three short blasts on the air horn. All personnel should evacuate upwind of any activities. Insure that a predetermined location is identified off-site in case of an emergency, so that all personnel can be accounted for.
- Personnel will be expected to precede to the closest exit with your buddy, and mobilize to the safe distance area associated with the evacuation route. Personnel will remain at that area until the re-entry alarm is sounded or an authorized individual provides further instructions.

Figure 10.1 provides a map depicting evacuation routes for the site and immediate area. Also indicated are muster areas and safe distances in the event of a major incident. The nearest medical facility is Southern Hills Medical Center at 391 Wallace Road (Figure 1).



10.5 Emergency Contact/Notification System

The following list provides names and telephone numbers for emergency contact personnel. In the event of a medical emergency, personnel will take direction from the HSO and notify the appropriate emergency organization. In the event of a fire or spill, the site supervisor will notify the appropriate local, state and federal agencies.

Organization	Contact	Telephone
Ambulance		911
Police		862-7400
Fire		327-1300
Hospital	Southern Hills Medical Center	781-4600
Poison Control Center		322-6435
Regional EPA		(404) 347-4727
General Emergency		911
Tennessee Occupational Medicine (non-emergency)		321-4800
Utility One Call		366-1987
Tennessee Emergency Response Center		741-0001
State Authority		741-7391
National Response Center		(800) 424-8802
Center for Disease Control		(404) 488-4100
Chemtrec		(800) 424-9555 or 724-9300
Signal Environmental Services, Inc.		(615) 265-9551



10.6 Emergency Medical Treatment Procedures

Any person who becomes ill or injured in the exclusion zone must be decontaminated to the maximum extent possible. If the injury or illness is minor, full decontamination should be completed and first aid administered prior to transport. If the patient's condition is serious, at least partial decontamination should be completed (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in blanket). First aid should be administered while awaiting an ambulance or paramedics. All injuries and illnesses must immediately be reported to the project manager.

Any person being transported to a clinic or hospital for treatment should take with them information on the chemical(s) they have been exposed to at the site. This information is included in Table 3.1.

Any vehicle used to transport contaminated personnel will be treated and cleaned as necessary.

10.7 Fire or Explosion

In the event of a fire or explosion, the local fire department should be summoned immediately. Upon their arrival, the project manager or designated alternate will advise the fire commander of the location, nature and identification of the hazardous materials onsite.

If it is safe to do so, site personnel may:

- use fire fighting equipment available onsite to control or extinguish the fire; and,
- Remove or isolate flammable or other hazardous materials onsite.

10.8 Spill or Leaks

In the event of a spill or leak, site personnel will:

- Inform their supervisor immediately;
- Locate the source of the spillage and stop the flow if it can be done safely; and,
- Begin containment and recovery of the spilled materials.



10.9 Emergency Equipment/Facilities

Figure 2 provides a map of the site and identifies the location of the following emergency equipment:

- First aid kit
- Fire extinguisher (moved as work progresses)
- Site telephone
- Stretcher
- Eye wash (moved as work progresses)
- Emergency shower
- Real time air equipment

11.0 Confined Space Entry Procedures

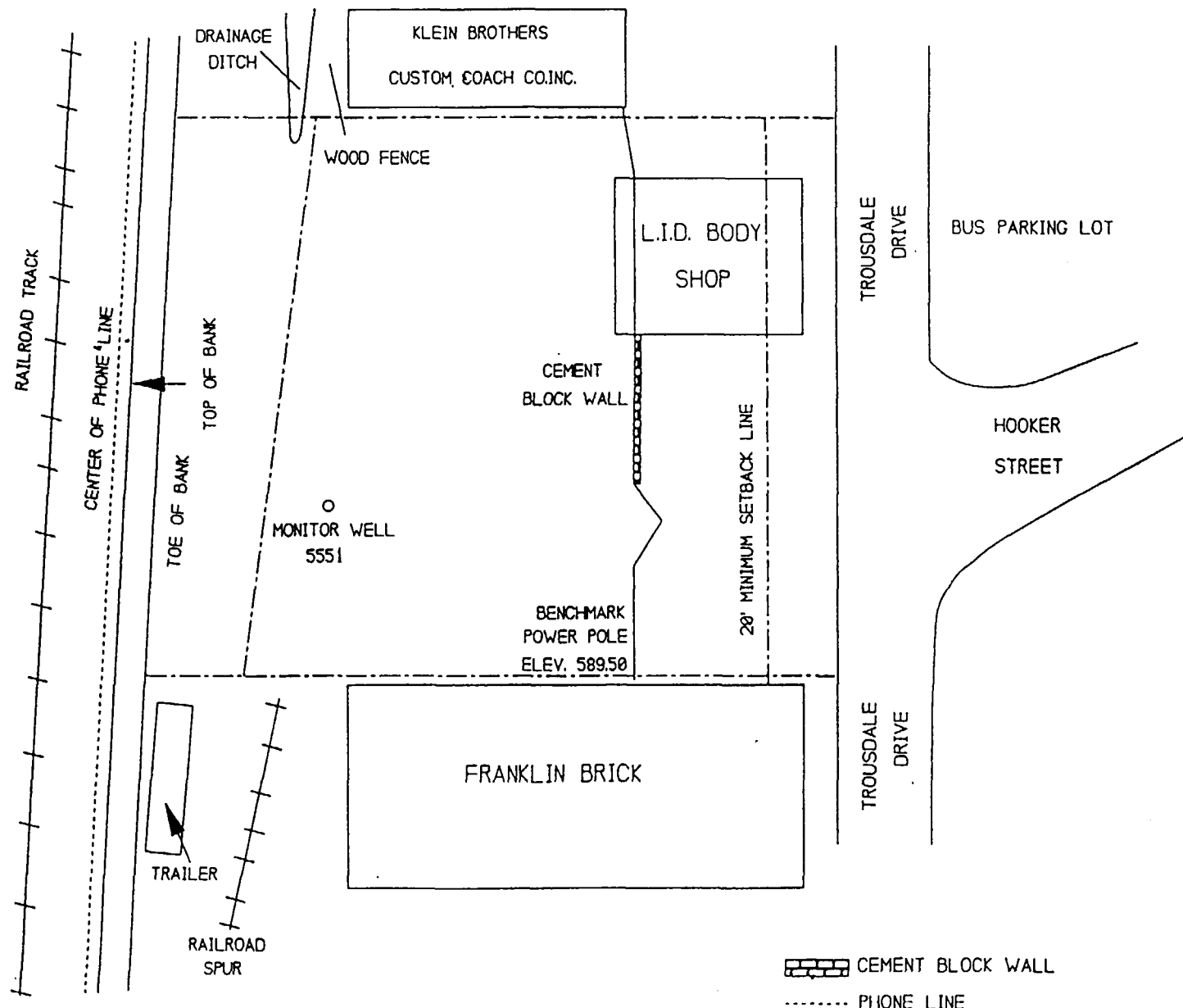
A confined space provides the potential for unusually high concentrations of contaminants, explosive atmospheres, limited visibility, and restricted movement. This section will establish requirements for safe entry into, continued work in, and safe exit from confined spaces. All confined space work will be in full compliance with OSHA Standard 29 CFR 1910.146, "Permit Required Confined Spaces". Additional information regarding confined space entry can be found in 29 CFR 1926.21, 29 CFR 1910 and NIOSH 80-106.

11.1 Definitions

- **Confined Space:** A space or work area not designed or intended for normal human occupancy, having limited means of egress and poor natural ventilation; and/or any structure, including buildings or rooms, which means of egress.
- **Confined Space Entry Permit (CSEP):** A document to be initiated by the supervisor of personnel who are to enter into or work in a confined space. The Confined Space Entry Permit (CSEP) will be completed by the personnel involved in the entry and approved by the HSO before personnel will be permitted to enter the confined space. The CSEP shall be valid only for the performance of the work identified and for the location and time specified. The beginning of a new shift with change of personnel will require the issuance of a new CSEP.
- **Confined Space Observer:** An individual assigned to monitor the activities of personnel working within a confined space. The confined space observer monitors and provides external



FIGURE 2
SAAD SITE PLAN



CEMENT BLOCK WALL
PHONE LINE

NOTE : DRAWING NOT
TO SCALE

assistance to those inside the confined space. The confined space observer summons rescue personnel in the event of emergency and assists the rescue team.

11.2 General Provisions

- When possible, confined spaces should be identified with a posted sign which reads: Caution - Confined Space.
- Only personnel trained and knowledgeable of the requirements of these Confined Space Entry Procedures will be authorized to enter a confined space or be a confined space observer.
- A Confined Space Entry Permit (CSEP) must be issued prior to the performance of any work within a confined space. The CSEP will become a part of the permanent and official record of the site. During the period of work in the confined space, the CSEP will be posted at the entry portal.
- Natural ventilation shall be provided for the confined space prior to initial entry and for the duration of the CSEP. Forced air ventilation will be used to maintain safe air conditions.
- If flammable liquids may be contained within the confined space, explosion proof equipment will be used. All equipment shall be positively grounded.
- The contents of any confined space shall, where necessary, be removed prior to entry. All sources of ignition must be removed prior to entry. Sources of hazardous air contaminants and unnecessary energy will be isolated by breaking and blinding lines and by lock-out/tag-out procedures.
- Hand tools used in confined spaces shall be in good repair, explosion proof and spark proof, and selected according to intended use. Where possible, pneumatic power tools are to be used.
- Hand-held lights and other illumination utilized in confined spaces shall be equipped with guards to prevent contact with the bulb and must be explosion proof.
- Confined space atmospheres will be tested for hazardous conditions as a part of the CSEP procedure prior to entry.
- If unacceptable atmospheric conditions are found, entry will be postponed until the condition is corrected and verified by re-testing.
- Compressed gas cylinders, except cylinders used for self-contained breathing apparatus, shall not be taken into confined spaces. Gas hoses shall be removed from the space and the supply turned off at the cylinder valve when personnel exit from the confined space.
- If a confined space requires respiratory equipment or where rescue may be difficult, safety belts, body harnesses, and lifelines will be used. The outside observer shall be provided with the same equipment as those working within the confined space.



- A ladder is required in all confined spaces deeper than the employee's shoulders. The ladder shall be secured and not removed until all employees have exited the space.
- Only self-contained breathing apparatus or NIOSH approved airline respirators equipped with a 5-minute emergency air supply with conditions determined immediately dangerous to life or health.
- Where air-moving equipment is used to provide ventilation, chemicals shall be removed from the vicinity to prevent introduction into the confined space.
- Vehicles or any other internal combustion engine powered equipment shall not be left running near confined space work or near air-moving equipment being used for confined space ventilation.
- Smoking in confined spaces will be prohibited at all times.
- Any deviation from these Confined Space Entry Procedures requires the prior permission of the On-Scene Coordinator.

11.3 Procedure for Confined Space Entry

The HSO and Entry Team shall:

- Evaluate the job to be done and identify the potential hazards before a job in a confined space is scheduled.
- Ensure that all process piping, mechanical and electrical equipment, etc., have been disconnected, purged, blanked-off or locked and tagged as necessary.
- If possible, ensure removal of any standing fluids that may produce toxic or air displacing gases, vapors, or dust.
- Initiate a Confined Space Entry Permit (CSEP) in concurrence with the project manager or designated alternative.
- Ensure that any hot work (welding, burning, open flames, or spark producing operation) that is to be performed in the confined space has been approved by the project manager and is indicated on the CSEP.
- Ensure that the space is ventilated before starting work in the confined space and for the duration of the time the work is to be performed in the space.
- Ensure that the personnel who enter the confined space and the confined space observer helper are familiar with the contents and requirements of this instruction.
- Ensure remote atmospheric testing of the confined space prior to employee entry and before validation/revalidation of a CSEP to ensure that Oxygen content is between 19.5% - 23.0%; that no concentration of combustible gas is in the space (sampling will be done throughout the



confined space and specifically at the lowest point in the space); the absence of other atmospheric contaminants above the action level if the space has toxic, corrosive, or irritant material; and if remote testing is not possible, Level B PPE is required as referenced in III 13.

- Designate whether hot or cold work will be allowed. If all tests in a. through c. in IV 8 are satisfactory, complete the CSEP listing any safety precautions, protective equipment, or other requirements.
- Ensure that a copy of the CSEP is posted at the work site, a copy is filed with the project supervisor, and a copy is furnished to the project manager.

The CSEP shall be considered void if work in the confined space does not start within one hour after the tests in IV 8 are performed or if significant changes within the confined space atmosphere or job scope occurs.

The CSEP posted at the work site shall be removed at the completion of the job or at the end of the shift, whichever is first.

11.4 Confined Space Observer

- While personnel are inside the confined space, a confined space observer will monitor activities and provide external assistance to those in the space.
- The confined space observer shall maintain at least voice contact with all personnel in the confined space. Visual contact is preferred, if possible.
- The observer shall be instructed by his supervisor in the method for contacting rescue personnel in the event of an emergency.
- If irregularities within the space are detected by the observer, personnel within the space will be ordered to exit.
- In the event of an emergency, the observer must NEVER enter the confined space prior to contacting and receiving assistance from a helper. Prior to this time, he should attempt to remove personnel with the lifeline and to perform all other rescue functions from outside the space.
- A helper shall be designated to provide assistance to the confined space observer in case the observer must enter the confined space to retrieve personnel.

12.0 Spill Containment Program

The procedures defined in this section comprise the spill containment program in place for activities at the Site.

- All drums and containers used during the clean-up shall meet the appropriate DOT, OSHA, and EPA regulators for the waste that they contain.
- Where spills, leaks, or raptures may occur, adequate quantities of spill containment equipment (absorbent, pillows, etc.) will be stationed in the immediate area. The spill containment program must be sufficient to contain and isolate the entire volume of hazardous substances being transferred.
- Fire extinguishing equipment meeting 29 CFR 1910 subpart I shall be on hand and ready for use to control fires.

13.0 Hazard Communication

In order to comply with 29 CFR 1910.1200, Hazardous Communication, the following written Hazardous Communication Program has been established. All employees will be briefed on this program, and have a written copy for review.

13.1 Container Labeling

All containers received on site will be inspected to ensure the following:

- All containers will be clearly labeled as to the contents
- The appropriate hazard warnings will be noted
- The names and address of the manufacture will be listed

All secondary containers will be labeled with either an extra copy of the original manufacture's label or with generic labels which have a block for identification and a block for the hazard warning.

13.2 Material Safety Data Sheets (MSDSs)

Copies of MSDSs for all hazardous chemicals known or suspected on site will be maintained in the work area. MSDSs will be available to all employees for review during each workshift.

13.3 Employee Training and Information

Prior to starting work, each employee will attend a health and safety orientation and will receive information and training on the following:

- An overview of the requirements contained in the Hazardous Communication Standard, 29 CFR 1910.1200
- Chemicals present in their workplace operations
- Location and availability of a written hazard program
- Physical and health effects of the hazardous chemicals
- Methods and observation techniques used to determine the presence or release of hazardous chemicals
- How to lessen or prevent exposures to these hazardous chemicals through usage of control/work practices and personal protective Equipment
- Emergency procedures to follow if they are exposed to these chemicals
- How to read labels and review MSDSs to obtain appropriate hazard information
- Location of MSDS file and location of hazardous chemical list



Appendix A



Personnel: Safety Officer _____ Others: _____

Weather:

SITE ACTIVITIES: Include instruments used, calibration, instrument readings, injuries, use, visitors, etc.

[illegible]

Appendix B



KNOWN ON-SITE CHEMICAL COMPOUNDS AND SELECTED CHARACTERISTICS

NOTE: The compounds or farming of compounds listed below have been identified from samples taken from soil and waters from previous sampling events at the S

Information regarding chemical characteristics included in this list was taken from Hawley's Condensed Chemical Dictionary, 11th Edition; Rev. by N.I. Sax and R.L. Lewis. All TLV-TVA information was taken from the 1990-1991 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices compiled by the American Conference of Governmental Industrial Hygienists (ACGIH). All IDLH and exposure symptom information was taken from the National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards - 1990.

Ethylbenzene (CAS # 100-41-4)

Properties: Colorless liquid, aromatic odor, vapor heavier than air, flash point = 59°F

Hazards: Toxic by ingestion skin absorption and inhalation; irritant to skin and flammable

TLV: 100 ppm

IDLH: 2,000 ppm

Symptoms: Irritation of the eyes and mucous membranes; headache, narcosis and even coma

Toluene (CAS # 108-88-3)

Properties: Colorless liquid, aromatic odor, flash point = 40°F

Hazards: Toxic by ingestion, inhalation and absorption; flammable

TLV: 100 ppm

IDLH: 2,000 ppm

Symptoms: Fatigue; weakness; confusion; euphoria; dizziness; headache; dilated pupils; lacrimation; nervousness; muscle fatigue; insomnia; paresthesia and dermatitis

Xylene (CAS # 1-D30-20-7)

Properties: Clear liquid, flash point = 81-115°F

Hazards: Toxic by ingestion and inhalation, flammable

TLV: 100 ppm

IDLH: 1,000 ppm

Symptoms: Dizziness; excitement; drowsiness; incoordination; staggering gait; irritation of eyes, nose and throat; corneal vacuolization; anorexia; nausea; vomiting; abdominal pain

Tetrachloroethylene (or Perchloroethylene CAS # 127-18-4)

Properties: Colorless liquid, ether-like odor, flash point - none

Hazards: Irritant to eyes and skin; potential carcinogen

TLV: 50ppm

IDLH: 500 ppm

Symptoms: Irritation of eyes, nose and throat; flushed face and neck; vertigo; dizziness; incoordination; headache; somnolence; skin erythema; liver damage

1,1-Dichloroethane (or Ethylene Chloride CAS # 75-34-3)

Properties: Colorless oily liquid, chloroform-like odor, flash point = 56F

Hazards: Toxic by ingestion, inhalation and skin absorption; strong irritant to eyes and skin, potential carcinogen; flammable

TLV: 10 ppm

IDLH: 4,000 ppm

Symptoms: Central nervous system depression; nausea; vomiting; dermatitis; irritation of eyes; corneal opacity

1,2-Dichloroethylene (CAS # 540-59-0)

Properties: Colorless liquid, pleasant odor, flash point = 39F

Hazards: Toxic by inhalation, ingestion and skin contact; irritant and narcotic in high concentrations; flammable

TLV: 200 ppm

IDLH: 4,000 ppm

Symptoms: Irritation of eyes and respiratory system; central nervous system depression

1,1,1-Trichloroethane (or Methyl Chloroform CAS # 71-55-6)

Properties: Colorless liquid, flash point - none

Hazards: Irritant to eyes and tissue

TLV: 350 ppm

IDLH: 1,000 ppm

Symptoms: Headache; lassitude; central nervous system depression; poor equilibrium; irritation; dermatitis and cardiac arrhythmias

Trichloroethylene (CAS # 79-01-6)

Properties: Colorless liquid, chloroform like odor, flash point - none

Hazards: Toxic by inhalation; potential carcinogen

TLV: 50 ppm

IDLH: 1,000 ppm

Symptoms: Headache; vertigo; visual disturbance; tremors; somnolence; nausea; vomiting; eye irritation; dermatitis; cardiac arrhythmias and paresthesia

Vinyl Chloride (CAS # 75-01-4)

Properties: Compressed gas easily liquified, usually handled as liquid, ether-like odor, flash point = -109F

Hazards: Toxic by all routes of exposure; a carcinogen; highly flammable

TLV: 5 ppm

IDLH: none available

Symptoms: Weakness; abdominal pain; gastrointestinal bleeding; hepatomegaly; pallor; cyanosis of extremities

Phenol (CAS # 108-95-2)

Properties: White crystalline mass when not in solution, typically used in solution, distinct odor, flash point = 172F

Hazards: Toxic by ingestion inhalation and skin absorption; strong irritant to tissue

TLV: 5ppm

IDLH: 250 PPM

Symptoms: Irritation of eyes, nose and throat; anorexia; weight loss; muscle aches and dark urine; tremors; convulsions; twitching; dermatitis; ochronosis

Naphthalene (CAS # 91-20-3)

Properties: White crystalline flakes, strong coal/tar odor, flash point = 176F

Hazards: Toxic by inhalation

TLV: 10 ppm

IDLH: 500 ppm

Symptoms: Eye irritation; headache; confusion; excitement; malaise; nausea; vomiting; abdominal pain; irritation of the bladder; profuse sweating; jaundice; hemoglobinuria; renal shutdown and dermatitis

Phenanthrene (CAS # 85-01-8)

Properties: Colorless shining crystals when not in solution

Hazards: A potential carcinogen; combustible

TLV: none available

IDLH: none available

Fluoranthene (CAS # 206-44-0)

Properties: Colored needles when not in solution

TLV: none available

IDLH: none available

Petroleum Hydrocarbons (diesel fuel, motor oil, etc.)

Properties: Viscous liquid (depending on grade), unpleasant odor

Hazards: Toxic by ingestion; local skin irritant; moderate fire risk

TLV: none available

IDLH: none available

Lead (asPb) (CAS # 7439-92-1), as noted per NIOSH, Pocket Guide to Chemical Hazards, 1990" OSHA considers "Lead" to mean metallic Pb, all inorganic Pb compounds (Pb oxides, Pb salts) and a class of organic Pb compounds called soaps. All other organic Pb compounds are excluded from this definition". No "lead dust" is anticipated at the site.

Properties: Metal, a heavy ductile, soft gray solid

TWA: "Dust" - NIOSH 0.100 mg/m³

IDLH: 700 mg/m³

Symptoms: Weakness, lassitude, insomnia, facial pallor, anorexia, weight loss, and tremors, encephalopathy, nephropathy, hypotension, irritated eyes

PCB 1248: No data per ACGIH (1991), NIOSH Pocket Guide to Chemical Hazard, Organic Vapor/Acid Gas/HEPA dust filters will be mandatory

PCB 1242 - Aroclor 1242 (CAS # 53469-21-9)

PCB, polychlorinated biphenyl, chlordiphenyl (42% chlorine)

Properties: Colorless to light colored, viscous liquid with a mild hydrocarbon odor, BP: 691°F, insoluble, vapor pressure: 0.001 mm. Nonflammable liquid, exposure to fire results in formation of black foot, containing PCBs, polychlorinated dibenzofuran, and chlorinated dibenzo-p-dioxins. Carcinogenic (NIO Understudy by ACGIH to Establish Biological Exposure Indices.

Exposure limits: NIOSH - 0.001 mg/m³

TWA OSHA - 1 mg/m³ (skin)

IDLH NIOSH - 10.0 mg/m³

Symptoms: Irritated eyes, chloracne, liver damage.

Protection: Class C PPE will be required for all personnel in the work zone.

Appendix C



LIST OF ON-SITE SAFETY EQUIPMENT

2 4 1236

Full-Face Respirators (x number of on-site workers)

Organic Vapor/Acid Gas and HEPA Respirator Cartridges (x number of on-site

Class D/C protective clothing (disposable clothing i.e., boots, gloves, etc.)

Duct Tape

Steel-Toe Safety Shoes/Boots

First Aid Kit(s)

Eyewash Stations

Safety Glasses (x number of on-site workers)

D.O.T. 17H55 Drums

6 Millimeter Polyethylene Plastic

Hard Hats

Air Horn

Mobile Telephones

Fire Extinguishers (all heavy equipment, one on-site, one at command post)

Water Cooler(s) and Drinking Cups/Electrolite solution >

Photoinization Detector

Explosimeter/Oxygen Meter

Brushes - As required for decontamination - various sizes

LIST OF ON-SITE SAFETY EQUIPMENT (Co

Detergent - As required for decontamination

2 4 1237

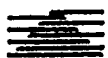
Water Source (hose(s) or tank, if necessary): Water from existing utilities will be use as wash and portable waters

Chemical Exposure Contingency Reference(s) - D.O.T./NIOSH/ACGIH Handbook

Self Contained Breathing Apparatus - with spare cylinder

Spark Free Tools (1 set)

Appendix D



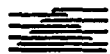
Appendix A

Filter Lenses for Protection Against Radiant Energy

Operations	Electric Size 1/32 Inch	Arc Current	Minimum Protective Shade
Shielded metal arc welding	Less than 3	Less than 60	7
	3 - 5	60 - 160	8
	5 - 8	160 - 250	10
	More than 8	250 - 550	11
Gas metal arc welding and flux cored arc welding	N/A	Less than 60	7
		60 - 160	10
		160 - 250	10
		250 - 500	10
Gas Tungsten arc welding	N/A	Less than 50	8
		50 - 150	8
		150 - 500	10
Air carbon Arc cutting	(Light)	Less than 500	10
	(Heavy)	500 - 1000	11
Plasma arc welding	N/A	Less than 20	6
		20 - 100	8
		100 - 400	10
		400 - 800	11
Plasma arc cutting	(Light)**	Less than 300	8
	(Medium)**	300 - 400	9
	(Heavy)**	400 - 800	10
Torch brazing	N/A	N/A	3
Torch soldering			2
Carbon arc welding			14
Gas Welding:	Under 1/8	Under 3.2	4
	1/8 to 1/2	3.2 to 12.7	5
	Over 1/2	Over 12.7	6
Oxygen Cutting:	Under 1	Under 25	3
	1 to 6	25 to 150	4
	Over 6	Over 150	5

* As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade giving sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbed the yellow or sodium line in the (spectrum) operation.

** These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when arc is hidden by the workpiece.



Signal Environmental Services, Inc.

Appendix B

Eye and Face Protection Selection Chart

Source	Assessment of Hazard	Protection
IMPACT - Chipping, grinding, masonry work, woodworking, sawing, drilling, chiseling, powered fastening, riveting and sanding	Flying fragments, objects, large chips, particles of sand, dirt, etc.	Spectacles with side protection, goggles, face shields. See notes (1), (3), (5), (6), (10). For severe exposure, use faceshield.
HEAT - Furnace operations, pouring, casting, hot dipping and welding	Hot sparks	Faceshields, goggles, spectacles with side protection. For severe exposure use face shield. See notes (1), (2), (3).
	Splash from molten metals	Faceshields worn over goggles. See notes (1), (2), (3).
	High temperature exposure	Screen face shields, reflective face shields. See notes (1), (2), (3).
CHEMICALS - Acid and chemicals handling, degreasing and plating	Splash	Goggles, eyecup and cover types. For severe exposure, use face shield. See notes (3), (11).
	Irritant mists	Special-purpose goggles.
DUST - Woodworking, buffing, general dusty conditions	Nuisance dust	Goggles, eyecup and cover types. See note (8).
LIGHT and/or RADIATION - Welding: Electric arc Welding: Gas arc Cutting, Torch brazing, Torch soldering Glare	Optical radiation	Welding helmets or welding shields. Typical shades: 10 - 14. See notes (9), (12).
	Optical radiation	Welding goggles or welding face shields. Typical shades: gas welding 4-8, cutting 3-6, brazing 3-4. See note (9).
	Optical radiation	Spectacles or welding face-shield. Typical shades: 1.5 - 3. See notes (3), (9).
	Poor vision	Spectacles with shaded or special-purpose lenses, as suitable. See notes (9), (10).



Notes to Eye and Face Protection Selection Chart:

- (1) Care should be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards should be provided. Protective devices do not provide unlimited protection.
- (2) Operations involving heat may also involve light radiation. As required by the standard, protection from both hazards must be provided.
- (3) Faceshields should be worn over primary eye protection (spectacles or goggles).
- (4) As required by the standard, filter lenses must meet the requirements for shade designations §1910.133(a)(5). Tinted and shaded lenses are *not* filter lenses unless they are marked and identified as such.
- (5) As required by the standard, persons whose vision requires the use of prescription lenses must wear either protective devices fitted with prescription lenses or protective devices designed to be worn over the regular prescription eyewear.
- (6) Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment. It should be recognized that dusty and/or chemical environments may present an additional hazard to contact lens wearers.
- (7) Caution should be exercised in the use of metal frame protection devices in electrical hazard areas.
- (8) Atmospheric conditions and the restricted ventilation of the protector can cause lenses to fog. Frequent cleansing may be necessary.
- (9) Welding helmets or faceshields should be used only over primary eye protection (spectacles or goggles).
- (10) Non-sideshielded spectacles are available for frontal protection only, but are not acceptable eye protection for the sources and operations listed for "impact."
- (11) Ventilation should be adequate, but well protected from splash entry. Eye and face protectors should be designed and used so that they provide both adequate ventilation and protect the wearer from splash entry.
- (12) Protection from light radiation is directly related to filter lens density. See note (4). Select the darkest shade that allows task performance.



Appendix D

SCBA Monthly Inspection Checklist

Backpack Number: _____ Air Cylinder Number: _____

Inspected by: _____ Date: ____/____/____

BACKPACK AND HARNESS ASSEMBLY		Satisfactory (S) or Action(s) Required
Straps	<ul style="list-style-type: none"> ● Inspect for complete set ● Inspect for damaged straps 	
Buckles	<ul style="list-style-type: none"> ● Inspect for mating ends ● Check locking function 	
Backplate and cylinder lock	<ul style="list-style-type: none"> ● Inspect Backplate for cracks, missing screws/rivets ● Inspect cylinder hold down strap ● Inspect strap tightener 	

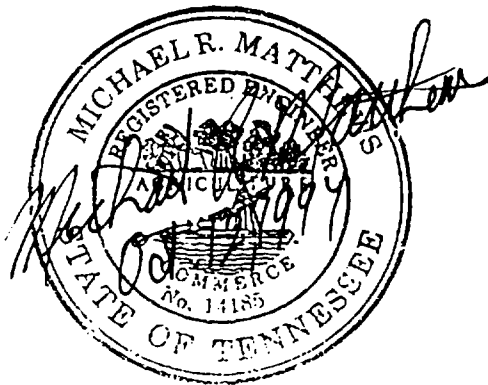
CYLINDER AND CYLINDER VALVE ASSEMBLY		Satisfactory (S) or Action(s) Required
Cylinder	<ul style="list-style-type: none"> ● Cylinder tight to Backplate ● Current hydrostatic test ● Inspect cylinder for dents/gouges 	
Head and Valve Assembly	<ul style="list-style-type: none"> ● Inspect cylinder valve lock ● Inspect cylinder gauge for condition ● Proper function of cylinder valve lock ● Test for cylinder valve leakage 	

REGULATOR HIGH PRESSURE HOSE		Satisfactory (S) or Action(s) Required
High Pressure Hose and Connector	<ul style="list-style-type: none"> ● Leakage in hose ● Leakage in hose to cylinder connector 	
Regulator and Low Pressure Alarm	<ul style="list-style-type: none"> ● Read regulator gauge (at least 1500 psi) ● Low pressure alarm sounds at 500-650 psi ● Test integrity of diaphragm ● Test for positive pressure ● Test by-pass system 	

FACEPIECE AND CORRUGATED BREATHING TUBE		Satisfactory (S) or Action(s) Required
Facepiece	<ul style="list-style-type: none">● Inspect harness for deterioration● Inspect facepiece body for deterioration● Inspect lens● Inspect Exhalation Valve	
Breathing Tube and Connector	<ul style="list-style-type: none">● Inspect breathing tube for deterioration● Inspect connector threads and gaskets	
Leak Test and Cleaning	<ul style="list-style-type: none">● Perform negative pressure test on facepiece/breathing tube● Clean and sanitize facepiece	

APPENDIX 3

SAMPLING WORK PLAN
for
SAAD SITE
NASHVILLE, TENNESSEE



Prepared by
Signal Environmental Services, Inc.
Chattanooga, Tennessee

October 1994

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Table 1 - Parameters and Laboratory Analyses

Appendices

Appendix 1 - Sample Label/Custody Seals

1.0 Background

The objective of this Sampling and Analysis Plan is to provide in written form the sampling and analysis protocols to be used at the Saad Site in Nashville, Tennessee. This plan is modeled after the Environmental Protection Agency's Environmental Compliance Branch Standard Operating Procedures (SOP) and Quality Assurance (QA) Manual. This plan is excerpted from EPA's manual for the specific applications at the Saad Site.

2.0 Soil Sampling

Soil sampling will be conducted using stainless steel augers or stainless steel spoons. Augers or sampling spoons will be advanced so that samples will be collected at the 6-12" interval. Each sample will be uniquely identified (see sample labeling section) and placed in a glass container with a teflon-lined lid. Sampling procedures used, location of samples, sample identification numbers used, and other pertinent data will be recorded permanently in bound, weaterproof field notebooks. The data recorded in the field notebooks will be written in fine point permanent ink. The field book will contain the investigator's name, project name, and other pertinent daily project information.

3.0 Composite/Split Sample Handling

Compositing of soil samples will not be done in the field but will be performed by the laboratory immediately before analysis.

In the event that split sampling will be done in the field the following method will be used. The soil to be split will be placed in a shallow stainless steel container. The soil in the pan will be split into quarters using a stainless steel sampler. Each quarter will be mixed separately, then all the quarters are mixed together. This procedure is then repeated several times until the sample is adequately mixed. Samples that might be collected for purgeable organics will not be mixed.

4.0 Sample Locations/Volume

Five different types of samples will be collected: (1) soil samples for site characterization, (2) excavated soil samples, (3) decon water samples, (4) final soil sampling, and (5) sampling for quality assurance.

4.1 Site Characterization

Characterization of site soils will be necessary at the beginning of the project to prepare waste profile data for the offsite disposal of the excavated soil. Soil samples will be collected to prepare the necessary waste profiles. To the extent possible existing soil data from previous site work will be used to characterize the site soil.

4.2 Excavated Soil Samples

Every 15 cubic yards of soil that is excavated will have two (2) four-ounce samples collected from it. As 15 cubic yards of soil is removed and placed in a temporary pile it will be sampled on each side from a depth of 6-12". Each stockpile of 105 cubic yards will have 14 samples. Seven of the samples will be composited into one sample for analysis. The remaining seven samples will be archived at the laboratory for 90 days for possible future analysis.

4.3 Decon Water Sampling

Decon water will be contained on site until completion of the site work. Prior to disposal a water sample will be collected in order to prepare a waste profile. Parameters for analysis of this sample will be based on the results of the soil analyses.

4.4 Final Site Soil Sampling

Soil samples will be collected on each of the pit walls to determine the characteristics of the soil that remained in the ground. Two samples from each of the four side walls (north, south, east, and west) will be collected. One sample will be taken at an 18" depth from the surface and the second sample will be taken at the bottom of the excavation. These eight samples will be sent to the laboratory to be composited for four analyses (one composite analysis per wall).

4.5 Soil Volume

Soil samples will be collected in four-ounce glass sample containers with Teflon coated lids. However, no less than 16 ounces of soil will be submitted for a single analysis. Actual analysis requires a minimum of 300 grams.

4.6 Quality Assurance Sampling

Data quality objectives are of the highest level (level IV) as described in the EPA SOP and QA Manual. As such, all sampling will be documented in the field log book. Data entries will be legible and include all appropriate documentation as described elsewhere. All field sampling will be documented in the field book and have an associated chain of custody. Every tenth sample will have a duplicate sample collected and submitted for analysis. The sample ID number will be the same as the original sample with the addition of the letters "DUP" to the end of the ID label.

If volatile organics or metals are checked in the soil samples or water sample, a soil and/or water VOA trip blank and an inorganic water trip blank will be submitted for analysis. Trip blanks will be prepared by Analytical Industrial Research Laboratory. These trip blanks will be carried into the field and handled along with the other samples and submitted for analysis. Trip blanks will help determine if sampling procedures potentially introduced contaminants into samples. At least one of each type of trip blank will be prepared and submitted.

An equipment blank will be prepared to determine the suitability of equipment cleaning. Deionized water will be run over cleaned equipment and the rinseate collected in a sample bottle preserved with HNO_3 . The rinseate will then be analyzed for metals to determine the suitability of the equipment cleaning.

4.6.1 Special Sampling Considerations

Collection of soil samples for VOA analysis will minimize disturbance of the sample. Samples will be placed directly from the sampling equipment into containers with *no head space*. No VOA samples will be mixed. All other soil samples will be mixed in the laboratory prior to analysis.

4.6.2 Cleaning Procedures for Sampling Equipment

All sampling equipment will be stainless steel augers or spoons. Cleaning of this equipment will be performed as follows:

- (1) Wash equipment thoroughly with Alconox (or similar laboratory equipment) and hot water, using a brush to remove any particulate matter or surface film.
- (2) Rinse equipment thoroughly with hot tap water.

- (3) Rinse equipment thoroughly with deionized water.
- (4) Rinse equipment twice with solvent and allow to air dry for at least 24 hours.
- (5) Wrap equipment in one layer of aluminum foil. Roll edges of foil into a "tab" to allow for easy removal. Seal the foil-wrapped equipment in plastic and date.
- (6) Rinse the stainless steel or metal sampling equipment thoroughly with tap water in the field as soon as possible after use.

5.0 Sample Labeling

A sample of the type of label to be used on sample containers is in Appendix 1. Labels will be prepared with waterproof permanent ink. Time of collection, sampler signature, project name, sample ID number, date, type of sample (soil or water), preservative (if any), and parameters requested will be written on the label. The attached sample label is filled in as it would be for a typical soil sample.

Samples will be identified with a unique numbering system. A typical soil sample number would look like this:

DEM10/10S1ADUP

Where:

- "DEM" is the Project Code
- "10/10" is the date (month and day) of sample
- "S" or "W" indicates either a soil or water sample
- "1", "2", etc. is the sample number
- The letters "A", "B", "C", etc. designate stockpile or other soil location
- "DUP" indicates that the sample is a duplicate

6.0 Chain of Custody/Custody Seals

A chain of custody will be prepared for all samples submitted to the laboratory for analysis. A sample chain of custody is included in Appendix 1.

Custody seals will be placed on each sample jar and/or shipping container. The labels will be prepared using permanent ink. A sample custody seal is provided in Appendix 1. The custody seals will be returned to Signal from the laboratory and kept with the permanent record. Copies of the seals will be submitted along with the results of the soil sampling for the final report.

7.0 Sample Preservation/Shipment

Collected soil samples (contained in glass jars with Teflon-coated lids) will be placed in ziplock bags. The plastic bags containing samples will be placed in an ice chest for shipment to the laboratory for analysis. The samples will be preserved using ice or ice packs. Shipment to the laboratory will be by Federal Express or local bus service. In certain cases samples will be transported by Signal personnel directly to the laboratory.

8.0 Parameters and Methodologies

Analytical work will be performed by Analytical Industrial Research Laboratory in Chattanooga, Tennessee. Copies of the QA/QC procedures for the laboratory are on file at the Signal office, and are available for inspection upon request.

The parameters shown in Table 1 will be analyzed for using the methodologies shown in the same table.

C:\WPWIN60\FILES\DEM1SAMP.PLN



Appendix 1

Sample Labeling and Custody Seals



Signal Environmental Services, Inc.



**ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES**

4295 CROMWELL RD., SUITE 614
CHATTANOOGA, TN 37421-2177

Report To:

Invoice To:

Chain of Custody Record

Page ____ of ____

PROJECT SITE		PO#		NO. OF CONTAINERS	ANALYSES								DATE REPORT DUE	
SITE NAME													VERBAL/FAX/HARDCOPY	
COLLECTED BY (Signature)													LAB ID NO. (for lab use only)	
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/ TIME		REMARKS									
REMARKS										RELINQUISHED BY:		DATE	TIME	
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME			

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
REMARKS									

24 1255

SIGNAL ENVIRONMENTAL Sample #
 SERVICES, INC. DEM10/10S1A
 900 Manufacturers Rd., P.O. Box 4270
 Chattanooga, TN 37405
 Client Name de maximus 10/13/94
 Analysis Requested TCLP
 Sample Source SOIL Preservative NONE
 Sampler Greg Veal

SIGNAL ENVIRONMENTAL
 SERVICES, INC.

900 Manufacturers, P.O. Box 4270
 Chattanooga, TN 37405

Sample # DEM10/10S1A

Date 10/13/94

Seal Broken By:

Signature Michael R Matthews

Print Name and Title
MICHAEL MATTHEWS
V.P. - ENGINEERING

Date

Examples of Completed Sample Labels

24 1254

APPENDIX 4

OPERATIONS

LABORATORY SERVICES

CONSULTATION

ANALYTICAL INDUSTRIAL RESEARCH LABORATORY

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177
(615) 894-8102

2 4 1256

LAB. NO. : 941028-17431

CUSTOMER: 1237

SIGNAL ENVIRONMENTAL SERVICES

P.O. BOX 4270

CHATTANOOGA, TN 37405

DATE RECD. : 10/28/94

SAMPLE DATE: 10/27/94

ATTENTION: MICHAEL MATTHEWS

(615) 265-9551 FAX:

DATE REQUESTED :

CUST P.O.:

SAMPLE : SAAD - DEM-1 SAAD NASHVILLE

: SAMPLE A & B

ASAP

XX

ANALYSIS

M.D.L. Methods Date Initial

TCLP TOXICITY CHARACTERISTIC CONSTITUENTS
W/O HERB & PEST (SEE ATTACHED)

pH	8.9 pH Units	N/A	150.1	10-31-94	JJ/PG
Flash Point	>200 F	N/A	1010	11-08-94	TB
PCB's	<1 ppm	1	8080	11-08-94	MW

TOTAL PETROLEUM HYDROCARBONS

DRO	140 mg/Kg	1.0	DRO	11-08-94	LG
GRO	<1.0 mg/Kg	1.0	GRO	11-08-94	LG

Soil Pad #1

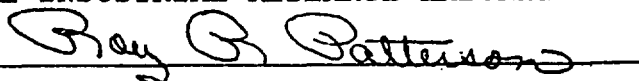
Notes:

XX

We hereby certify that the analytical procedures employed
are those approved by the Environmental Protection Agency or
other applicable methods for these analyses.

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By



ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 17431
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: SAAD SAMPLE A&B

TCLP METHOD 1311
SAMPLE DATE: 10/27/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (SW-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	11/08/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	11/08/94	8240
D021	CHLOROBENZENE	100.	10.	ND	11/08/94	8240
D022	CHLOROFORM	6.0	1.0	ND	11/08/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	11/08/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	11/08/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	11/08/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	11/08/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	ND	11/08/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	ND	11/08/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	11/08/94	8240
TCLP SEMIVOLATILES						
TCLP ACIDS						
D023	o-CRESOL	200	1.0	ND	11/03/94	8270
D024	m-CRESOL	200	1.0	ND	11/03/94	8270
D025	p-CRESOL	200	1.0	ND	11/03/94	8270
D026	CRESOLS (TOTAL)	200	1.0	ND	11/03/94	8270
D037	PENTACHLOROPHENOL	100	1.0	ND	11/03/94	8270
D041	2,4,5-TRICHLOROPHENOL	400	1.0	ND	11/03/94	8270
D042	2,4,6-TRICHLOROPHENOL	2.0	1.0	ND	11/03/94	8270
TCLP BASE/NEUTRALS						
D030	2,4-DINITROTOLUENE	0.13	0.05	ND	11/03/94	8270
D032	HEXACHLOROBENZENE	0.13	0.05	ND	11/03/94	8270
D033	HEXACHLORO-1,3-BUTADIENE	0.5	0.1	ND	11/03/94	8270
D034	HEXACHLOROETHANE	3.0	0.5	ND	11/03/94	8270
D036	NITROBENZENE	2.0	1.0	ND	11/03/94	8270
D038	PYRIDINE	5.0	2.5	ND	11/03/94	8270
TCLP METALS						
D004	ARSENIC	5.0	0.5	ND	11/02/94	6010
D005	BARIUM	100	5.0	ND	11/02/94	6010
D006	CADMIUM	1.0	0.1	ND	11/02/94	6010
D007	CHROMIUM	5.0	0.5	ND	11/02/94	6010
D008	LEAD	5.0	0.5	ND	11/02/94	6010
D009	MERCURY	0.2	0.01	ND	11/02/94	7470
D010	SELENIUM	1.0	0.1	ND	11/02/94	6010
D011	SILVER	5.0	0.5	ND	11/02/94	6010

Performed in accordance with 40 CFR 261(06/29/90)

OPERATIONS

LABORATORY SERVICES

CONSULTATION

ANALYTICAL INDUSTRIAL RESEARCH LABORATORY

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177 2 4 1258
(615) 894-8102

LAB. NO. : 941104-17762

CUSTOMER: 1237
SIGNAL ENVIRONMENTAL SERVICES
P.O. BOX 4270
CHATTANOOGA, TN 37405

DATE RECD. : 11/04/94
SAMPLE DATE: 11/03/94

ATTENTION: MICHAEL MATTHEWS
(615) 265-9551 FAX:
SAMPLE : SAAD NASHVILLE SAAD SITE
: 7 SOILS TO COMPOSITE

DATE REQUESTED:
CUST P.O.: DEM-1

ASAP

XX
ANALYSIS

TCLP TOXICITY CHARACTERISTIC CONSTITUENTS:

SEE ATTACHED

Notes:

ALL RESULTS RECORDED IN PPM OR MG/L UNLESS OTHERWISE STATED.

XX

We hereby certify that the analytical procedures employed
are those approved by the Environmental Protection Agency or
other applicable methods for these analyses.

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By Ray B. Patterson

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 17762
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: SOIL COMPOSITE

TCLP METHOD 1311
SAMPLE DATE: 11/03/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (SW-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	11/09/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	11/09/94	8240
D021	CHLOROBENZENE	100.	10.	ND	11/09/94	8240
D022	CHLOROFORM	6.0	1.0	ND	11/09/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	11/09/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	11/09/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	11/09/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	11/09/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	ND	11/09/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	ND	11/09/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	11/09/94	8240
TCLP SEMIVOLATILES						
TCLP ACIDS						
D023	o-CRESOL	200	1.0	ND	11/09/94	8270
D024	m-CRESOL	200	1.0	ND	11/09/94	8270
D025	p-CRESOL	200	1.0	ND	11/09/94	8270
D026	CRESOLS (TOTAL)	200	1.0	ND	11/09/94	8270
D037	PENTACHLOROPHENOL	100	1.0	ND	11/09/94	8270
D041	2,4,5-TRICHLOROPHENOL	400	1.0	ND	11/09/94	8270
D042	2,4,6-TRICHLOROPHENOL	2.0	1.0	ND	11/09/94	8270
TCLP BASE/NEUTRALS						
D030	2,4-DINITROTOLUENE	0.13	0.05	ND	11/09/94	8270
D032	HEXACHLOROBENZENE	0.13	0.05	ND	11/09/94	8270
D033	HEXACHLORO-1,3-BUTADIENE	0.5	0.1	ND	11/09/94	8270
D034	HEXACHLOROETHANE	3.0	0.5	ND	11/09/94	8270
D036	NITROBENZENE	2.0	1.0	ND	11/09/94	8270
D038	PYRIDINE	5.0	2.5	ND	11/09/94	8270
TCLP PESTICIDES						
D020	CHLORDANE	0.03	0.01	ND	11/09/94	8080
D012	ENDRIN	0.03	0.01	ND	11/09/94	8080
D031	HEPTACHLOR	0.008	0.005	ND	11/09/94	8080
	-EPOXIDE	0.008	0.005	ND	11/09/94	8080
D013	LINDANE	0.4	0.1	ND	11/09/94	8080
D014	METHOXYCHLOR	10	1.0	ND	11/09/94	8080
D015	TOXAPHENE	0.5	0.1	ND	11/09/94	8080
TCLP HERBICIDES						
D016	2,4-D	10.0	0.5	ND	11/09/94	8150
D017	2,4,5-TP (SILVEX)	1.0	0.5	ND	11/09/94	8150
TCLP METALS						
D004	ARSENIC	5.0	0.5	ND	11/09/94	6010
D005	BARIUM	100	5.0	ND	11/09/94	6010
D006	CADMIUM	1.0	0.1	0.118	11/09/94	6010
D007	CHROMIUM	5.0	0.5	ND	11/09/94	6010
D008	LEAD	5.0	0.5	ND	11/09/94	6010
D009	MERCURY	0.2	0.01	ND	11/09/94	7470
D010	SELENIUM	1.0	0.1	ND	11/09/94	6010
D011	SILVER	5.0	0.5	ND	11/09/94	6010

Performed in accordance with 40 CFR 261 (06/29/90)

OPERATIONS

LABORATORY SERVICES

CONSULTATION

ANALYTICAL INDUSTRIAL RESEARCH LABORATORY

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177
(615) 894-8102

2 4 1200

LAB. NO. : 941118-18533

CUSTOMER: 1237
SIGNAL ENVIRONMENTAL SERVICES
P.O. BOX 4270
CHATTANOOGA, TN 37405

DATE RECD. : 11/04/94
SAMPLE DATE: 11/03/94

ATTENTION: MICHAEL MATTHEWS
(615) 265-9551 FAX:

DATE REQUESTED :
CUST P.O.: DEM-1

SAMPLE : SAAD NASHVILLE SAAD SITE
: 7 SOILS TO COMPOSITE

Ref. # 941104-17762

ASAP

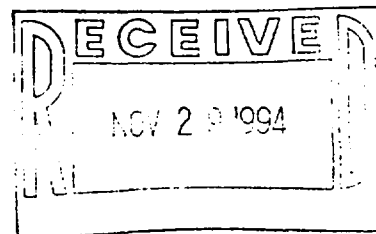
XX

ANALYSIS

M.D.L. Methods Date Initial

TCLP TOTAL PETROLEUM HYDROCARBONS
DRO 1.6 mg/L

0.1 DRO 11-28-94 LG



Notes:

XX
We hereby certify that the analytical procedures employed
are those approved by the Environmental Protection Agency or
other applicable methods for these analyses.

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By Ray B. Patterson

CONSULTATION

(615) 894-8102

24 1261

By

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 18503
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: 7 SOIL COMPOSITE

TCLP METHOD 1311
SAMPLE DATE: 11/17/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (SW-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	11/21/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	11/21/94	8240
D021	CHLOROBENZENE	100.	10.	ND	11/21/94	8240
D022	CHLOROFORM	6.0	1.0	ND	11/21/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	11/21/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	11/21/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	11/21/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	11/21/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	ND	11/21/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	3.8	11/21/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	11/21/94	8240
TCLP SEMIVOLATILES						
TCLP ACIDS						
D023	o-CRESOL	200	1.0	ND	11/21/94	8270
D024	m-CRESOL	200	1.0	ND	11/21/94	8270
D025	p-CRESOL	200	1.0	ND	11/21/94	8270
D026	CRESOLS (TOTAL)	200	1.0	ND	11/21/94	8270
D037	PENTACHLOROPHENOL	100	1.0	ND	11/21/94	8270
D041	2,4,5-TRICHLOROPHENOL	400	1.0	ND	11/21/94	8270
D042	2,4,6-TRICHLOROPHENOL	2.0	1.0	ND	11/21/94	8270
TCLP BASE/NEUTRALS						
D030	2,4-DINITROTOLUENE	0.13	0.05	ND	11/21/94	8270
D032	HEXACHLOROBENZENE	0.13	0.05	ND	11/21/94	8270
D033	HEXACHLORO-1,3-BUTADIENE	0.5	0.1	ND	11/21/94	8270
D034	HEXACHLOROETHANE	3.0	0.5	ND	11/21/94	8270
D036	NITROBENZENE	2.0	1.0	ND	11/21/94	8270
D038	PYRIDINE	5.0	2.5	ND	11/21/94	8270
TCLP PESTICIDES						
D020	CHLORDANE	0.03	0.01	ND	11/21/94	8080
D012	ENDRIN	0.03	0.01	ND	11/21/94	8080
D031	HEPTACHLOR	0.008	0.005	ND	11/21/94	8080
	-EPOXIDE	0.008	0.005	ND	11/21/94	8080
D013	LINDANE	0.4	0.1	ND	11/21/94	8080
D014	METHOXYCHLOR	10	1.0	ND	11/21/94	8080
D015	TOXAPHENE	0.5	0.1	ND	11/21/94	8080
TCLP HERBICIDES						
D016	2,4-D	10.0	0.5	ND	11/21/94	8150
D017	2,4,5-TP (SILVEX)	1.0	0.5	ND	11/21/94	8150
TCLP METALS						
D004	ARSENIC	5.0	0.5	ND	11/21/94	6010
D005	BARIIUM	100	5.0	ND	11/21/94	6010
D006	CADMIUM	1.0	0.1	ND	11/21/94	6010
D007	CHROMIUM	5.0	0.5	ND	11/21/94	6010
D008	LEAD	5.0	0.5	ND	11/21/94	6010
D009	MERCURY	0.2	0.01	ND	11/21/94	7470
D010	SELENIUM	1.0	0.1	ND	11/21/94	6010
D011	SILVER	5.0	0.5	ND	11/21/94	6010

Performed in accordance with 40 CFR 261.06(29/90)

OPERATIONS

LABORATORY SERVICES

CONSULTATION

ANALYTICAL INDUSTRIAL RESEARCH LABORATORY

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177
(615) 894-8102

2 4 1263

LAB. NO. : 941118-18504

CUSTOMER: 1237

SIGNAL ENVIRONMENTAL SERVICES

P.O. BOX 4270

CHATTANOOGA, TN 37405

DATE RECD. : 11/18/94

SAMPLE DATE: 11/17/94

ATTENTION: MICHAEL MATTHEWS

(615) 265-9551 FAX:

DATE REQUESTED: 11/21/94

CUST P.O.: DEM-1

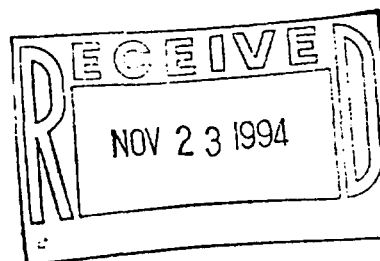
SAMPLE : SAAD TROUSDALE SAAD SITE

: SAD11/17016 SOIL

ASAP

XX
ANALYSIS

TCLP TOXICITY CHARACTERISTIC CONSTITUENTS:
(SEE ATTACHED)



Notes: TENNESSEE NON REGULATED SOIL

ALL RESULTS RECORDED IN PPM OR MG/L UNLESS OTHERWISE STATED.

XX

**We hereby certify that the analytical procedures employed
are those approved by the Environmental Protection Agency or
other applicable methods for these analyses.**

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By

Ray B. Patterson

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 18504
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: SAD11/17016

TCLP METHOD 1311
SAMPLE DATE: 11/17/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (SW-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	11/21/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	11/21/94	8240
D021	CHLOROBENZENE	100.	10.	ND	11/21/94	8240
D022	CHLOROFORM	6.0	1.0	ND	11/21/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	11/21/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	11/21/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	11/21/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	11/21/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	ND	11/21/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	ND	11/21/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	11/21/94	8240
TCLP SEMIVOLATILES						
TCLP ACIDS						
D023	o-CRESOL	200	1.0	ND	11/21/94	8270
D024	m-CRESOL	200	1.0	ND	11/21/94	8270
D025	p-CRESOL	200	1.0	ND	11/21/94	8270
D026	CRESOLS (TOTAL)	200	1.0	ND	11/21/94	8270
D037	PENTACHLOROPHENOL	100	1.0	ND	11/21/94	8270
D041	2,4,5-TRICHLOROPHENOL	400	1.0	ND	11/21/94	8270
D042	2,4,6-TRICHLOROPHENOL	2.0	1.0	ND	11/21/94	8270
TCLP BASE/NEUTRALS						
D030	2,4-DINITROTOLUENE	0.13	0.05	ND	11/21/94	8270
D032	HEXACHLOROBENZENE	0.13	0.05	ND	11/21/94	8270
D033	HEXACHLORO-1,3-BUTADIENE	0.5	0.1	ND	11/21/94	8270
D034	HEXACHLOROETHANE	3.0	0.5	ND	11/21/94	8270
D036	NITROBENZENE	2.0	1.0	ND	11/21/94	8270
D038	PYRIDINE	5.0	2.5	ND	11/21/94	8270
TCLP PESTICIDES						
D020	CHLORDANE	0.03	0.01	ND	11/21/94	8080
D012	ENDRIN	0.03	0.01	ND	11/21/94	8080
D031	HEPTACHLOR	0.008	0.005	ND	11/21/94	8080
	-EPOXIDE	0.008	0.005	ND	11/21/94	8080
D013	LINDANE	0.4	0.1	ND	11/21/94	8080
D014	METHOXYCHLOR	10	1.0	ND	11/21/94	8080
D015	TOXAPHENE	0.5	0.1	ND	11/21/94	8080
TCLP HERBICIDES						
D016	2,4-D	10.0	0.5	ND	11/21/94	8150
D017	2,4,5-TP (SILVEX)	1.0	0.5	ND	11/21/94	8150
TCLP METALS						
D004	ARSENIC	5.0	0.5	ND	11/21/94	6010
D005	BARIUM	100	5.0	ND	11/21/94	6010
D006	CADMIUM	1.0	0.1	ND	11/21/94	6010
D007	CHROMIUM	5.0	0.5	ND	11/21/94	6010
D008	LEAD	5.0	0.5	ND	11/21/94	6010
D009	MERCURY	0.2	0.01	ND	11/21/94	7470
D010	SELENIUM	1.0	0.1	ND	11/21/94	6010
D011	SILVER	5.0	0.5	ND	11/21/94	6010

Performed in accordance with 40 CFR 261.06(29/90)

CONSULTATION

2 4 1265

By

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 18505
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: 7 SOIL COMPOSITE

TCLP METHOD 1311
SAMPLE DATE: 11/17/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (SW-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	11/23/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	11/23/94	8240
D021	CHLOROBENZENE	100.	10.	ND	11/23/94	8240
D022	CHLOROFORM	6.0	1.0	ND	11/23/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	11/23/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	11/23/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	11/23/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	11/23/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	0.16	11/23/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	2.8	11/23/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	11/23/94	8240
TCLP SEMIVOLATILES						
TCLP ACIDS						
D023	o-CRESOL	200	1.0	ND	11/23/94	8270
D024	m-CRESOL	200	1.0	ND	11/23/94	8270
D025	p-CRESOL	200	1.0	1.5	11/23/94	8270
D026	CRESOLS (TOTAL)	200	1.0	1.5	11/23/94	8270
D037	PENTACHLOROPHENOL	100	1.0	ND	11/23/94	8270
D041	2,4,5-TRICHLOROPHENOL	400	1.0	ND	11/23/94	8270
D042	2,4,6-TRICHLOROPHENOL	2.0	1.0	ND	11/23/94	8270
TCLP BASE/NEUTRALS						
D030	2,4-DINITROTOLUENE	0.13	0.05	ND	11/23/94	8270
D032	HEXACHLOROBENZENE	0.13	0.05	ND	11/23/94	8270
D033	HEXACHLORO-1,3-BUTADIENE	0.5	0.1	ND	11/23/94	8270
D034	HEXACHLOROETHANE	3.0	0.5	ND	11/23/94	8270
D036	NITROBENZENE	2.0	1.0	ND	11/23/94	8270
D038	PYRIDINE	5.0	2.5	ND	11/23/94	8270
TCLP PESTICIDES						
D020	CHLORDANE	0.03	0.01	ND	11/23/94	8080
D012	ENDRIN	0.03	0.01	ND	11/23/94	8080
D031	HEPTACHLOR	0.008	0.005	ND	11/23/94	8080
	-EPOXIDE	0.008	0.005	ND	11/23/94	8080
D013	LINDANE	0.4	0.1	ND	11/23/94	8080
D014	METHOXYCHLOR	10	1.0	ND	11/23/94	8080
D015	TOXAPHENE	0.5	0.1	ND	11/23/94	8080
TCLP HERBICIDES						
D016	2,4-D	10.0	0.5	ND	11/23/94	8150
D017	2,4,5-TP (SILVEX)	1.0	0.5	ND	11/23/94	8150
TCLP METALS						
D004	ARSENIC	5.0	0.5	ND	11/23/94	6010
D005	BARIUM	100	5.0	ND	11/23/94	6010
D006	CADMIUM	1.0	0.1	ND	11/23/94	6010
D007	CHROMIUM	5.0	0.5	ND	11/23/94	6010
D008	LEAD	5.0	0.5	ND	11/23/94	6010
D009	MERCURY	0.2	0.01	ND	11/22/94	7470
D010	SELENIUM	1.0	0.1	ND	11/23/94	6010
D011	SILVER	5.0	0.5	ND	11/23/94	6010

Performed in accordance with 40 CFR 261.06(29/90)

OPERATIONS

LABORATORY SERVICES

CONSULTATION

ANALYTICAL INDUSTRIAL RESEARCH LABORATORY

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177
(615) 894-8102

2 4 1267

LAB. NO. : 941118-18506

CUSTOMER: 1237
SIGNAL ENVIRONMENTAL SERVICES
P.O. BOX 4270
CHATTANOOGA, TN 37405

DATE RECD. : 11/18/94
SAMPLE DATE: 11/17/94

ATTENTION: MICHAEL MATTHEWS
(615) 265-9551 FAX:
SAMPLE : SAAD TROUSDALE SAAD SITE
: 5 SOILS TO COMPOSITE

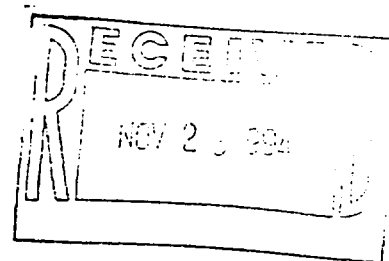
DATE REQUESTED: 11/25/94
CUST P.O.: DEM-1

ASAP

XX
ANALYSIS

TCLP TOXICITY CHARACTERISTIC CONSTITUENTS:
(SEE ATTACHED)

Stock pile



Notes: TENNESSEE NON REGULATED SOIL

ALL RESULTS RECORDED IN PPM OR MG/L UNLESS OTHERWISE STATED.

XX

We hereby certify that the analytical procedures employed
are those approved by the Environmental Protection Agency or
other applicable methods for these analyses.

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By Ray B. Patterson

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 18506
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: 5 SOIL COMPOSITE

TCLP METHOD 1311
SAMPLE DATE: 11/17/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (SW-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	11/23/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	11/23/94	8240
D021	CHLOROBENZENE	100.	10.	ND	11/23/94	8240
D022	CHLOROFORM	6.0	1.0	ND	11/23/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	11/23/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	11/23/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	11/23/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	11/23/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	ND	11/23/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	0.81	11/23/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	11/23/94	8240
TCLP SEMIVOLATILES						
TCLP ACIDS						
D023	o-CRESOL	200	1.0	ND	11/23/94	8270
D024	m-CRESOL	200	1.0	ND	11/23/94	8270
D025	p-CRESOL	200	1.0	1.5	11/23/94	8270
D026	CRESOLS (TOTAL)	200	1.0	1.5	11/23/94	8270
D037	PENTACHLOROPHENOL	100	1.0	ND	11/23/94	8270
D041	2,4,5-TRICHLOROPHENOL	400	1.0	ND	11/23/94	8270
D042	2,4,6-TRICHLOROPHENOL	2.0	1.0	ND	11/23/94	8270
TCLP BASE/NEUTRALS						
D030	2,4-DINITROTOLUENE	0.13	0.05	ND	11/23/94	8270
D032	HEXACHLOROBENZENE	0.13	0.05	ND	11/23/94	8270
D033	HEXACHLORO-1,3-BUTADIENE	0.5	0.1	ND	11/23/94	8270
D034	HEXACHLOROETHANE	3.0	0.5	ND	11/23/94	8270
D036	NITROBENZENE	2.0	1.0	ND	11/23/94	8270
D038	PYRIDINE	5.0	2.5	ND	11/23/94	8270
TCLP PESTICIDES						
D020	CHLORDANE	0.03	0.01	ND	11/23/94	8080
D012	ENDRIN	0.03	0.01	ND	11/23/94	8080
D031	HEPTACHLOR	0.008	0.005	ND	11/23/94	8080
	-EPOXIDE	0.008	0.005	ND	11/23/94	8080
D013	LINDANE	0.4	0.1	ND	11/23/94	8080
D014	METHOXYCHLOR	10	1.0	ND	11/23/94	8080
D015	TOXAPHENE	0.5	0.1	ND	11/23/94	8080
TCLP HERBICIDES						
D016	2,4-D	10.0	0.5	ND	11/23/94	8150
D017	2,4,5-TP (SILVEX)	1.0	0.5	ND	11/23/94	8150
TCLP METALS						
D004	ARSENIC	5.0	0.5	ND	11/23/94	6010
D005	BARIUM	100	5.0	ND	11/23/94	6010
D006	CADMIUM	1.0	0.1	ND	11/23/94	6010
D007	CHROMIUM	5.0	0.5	ND	11/23/94	6010
D008	LEAD	5.0	0.5	ND	11/23/94	6010
D009	MERCURY	0.2	0.01	ND	11/22/94	7470
D010	SELENIUM	1.0	0.1	ND	11/23/94	6010
D011	SILVER	5.0	0.5	ND	11/23/94	6010

Performed in accordance with 40 CFR 261.06(29/90)

CONSULTATION

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177
(615) 894-8102

2 4 1269

DATE RECD. : 11/18/94
SAMPLE DATE: 11/17/94

DATE REQUESTED: 11/25/94
CUST P.O.: DEM-1

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RESERVE
NOV 20 1994

We hereby certify that the analytical procedures employed are those approved by the Environmental Protection Agency or other applicable methods for these analyses.

By Gray R Patterson

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 18507
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: 7 SOIL COMPOSITE

TCLP METHOD 1311
SAMPLE DATE: 11/17/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (SW-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	11/23/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	11/23/94	8240
D021	CHLOROBENZENE	100.	10.	ND	11/23/94	8240
D022	CHLOROFORM	6.0	1.0	ND	11/23/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	11/23/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	11/23/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	11/23/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	11/23/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	ND	11/23/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	0.92	11/23/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	11/23/94	8240
TCLP SEMIVOLATILES						
TCLP ACIDS						
D023	o-CRESOL	200	1.0	ND	11/23/94	8270
D024	m-CRESOL	200	1.0	ND	11/23/94	8270
D025	p-CRESOL	200	1.0	ND	11/23/94	8270
D026	CRESOLS (TOTAL)	200	1.0	ND	11/23/94	8270
D037	PENTACHLOROPHENOL	100	1.0	ND	11/23/94	8270
D041	2,4,5-TRICHLOROPHENOL	400	1.0	ND	11/23/94	8270
D042	2,4,6-TRICHLOROPHENOL	2.0	1.0	ND	11/23/94	8270
TCLP BASE/NEUTRALS						
D030	2,4-DINITROTOLUENE	0.13	0.05	ND	11/23/94	8270
D032	HEXACHLOROBENZENE	0.13	0.05	ND	11/23/94	8270
D033	HEXACHLORO-1,3-BUTADIENE	0.5	0.1	ND	11/23/94	8270
D034	HEXACHLOROETHANE	3.0	0.5	ND	11/23/94	8270
D036	NITROBENZENE	2.0	1.0	ND	11/23/94	8270
D038	PYRIDINE	5.0	2.5	ND	11/23/94	8270
TCLP PESTICIDES						
D020	CHLORDANE	0.03	0.01	ND	11/23/94	8080
D012	ENDRIN	0.03	0.01	ND	11/23/94	8080
D031	HEPTACHLOR	0.008	0.005	ND	11/23/94	8080
	-EPOXIDE	0.008	0.005	ND	11/23/94	8080
D013	LINDANE	0.4	0.1	ND	11/23/94	8080
D014	METHOXYCHLOR	10	1.0	ND	11/23/94	8080
D015	TOXAPHENE	0.5	0.1	ND	11/23/94	8080
TCLP HERBICIDES						
D016	2,4-D	10.0	0.5	ND	11/23/94	8150
D017	2,4,5-TP (SILVEX)	1.0	0.5	ND	11/23/94	8150
TCLP METALS						
D004	ARSENIC	5.0	0.5	ND	11/23/94	6010
D005	BARIUM	100	5.0	ND	11/23/94	6010
D006	CADMIUM	1.0	0.1	ND	11/23/94	6010
D007	CHROMIUM	5.0	0.5	ND	11/23/94	6010
D008	LEAD	5.0	0.5	ND	11/23/94	6010
D009	MERCURY	0.2	0.01	ND	11/22/94	7470
D010	SELENIUM	1.0	0.1	ND	11/23/94	6010
D011	SILVER	5.0	0.5	ND	11/23/94	6010

Performed in accordance with 40 CFR 261 (06/29/90)

ANALYTICAL INDUSTRIAL RESEARCH LABORATORY

4295 Cromwell Road, Suite 614
 Chattanooga, Tennessee 37421-2177
 (615) 894-8182

24 1271

LAB. NO. : 941130-190

CUSTOMER: 1237
 SIGNAL ENVIRONMENTAL SERVICES
 P.O. BOX 4278
 CHATTANOOGA, TN 37405

DATE RECD. : 11/30/94
 SAMPLE DATE: 11/29/94

ATTENTION:
 (615) 265-9551 FAX:

DATE REQUESTED : 12/02/94
 CUST P.O.:

SAMPLE : SAAD SITE

: 7 SOIL SAMPLES TO COMPOSITE

R001-R007

RUSH

XX
 ANALYSIS

M.D.L. Methods Date Init

PCB <1.0 ppm

1.0 8080 12-02-94 MW

TCLP Volatiles: See Attached

Notes: TENNESSEE SOIL - NON REGULATED

XX

We hereby certify that the analytical procedures employed
 are those approved by the Environmental Protection Agency or
 other applicable methods for these analyses.

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By Ray B. Patterson

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 19068
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: 7 SOILS R001-R007

TCLP METHOD 1311
SAMPLE DATE: 11/29/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (SW-846)
TCLP VOLATILES (ZHS)						
D016	BENZENE	0.5	0.1	ND	12/01/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	12/01/94	8240
D021	CHLOROBENZENE	100.	10.	ND	12/01/94	8240
D022	CHLOROFORM	6.0	1.0	ND	12/01/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	12/01/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	12/01/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	12/01/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	12/01/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	0.2	12/01/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	3.0	12/01/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	12/01/94	8240

Performed in accordance with 40 CFR 261 (06/29/90)

ANALYTICAL INDUSTRIAL RESEARCH LABORATORY

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177 2 4 1273
(615) 894-8182

LAB. NO. : 941130-1906

CUSTOMER: 1237
SIGNAL ENVIRONMENTAL SERVICES
P.O. BOX 4270
CHATTANOOGA, TN 37405

DATE RECD. : 11/30/94
SAMPLE DATE: 11/29/94

ATTENTION:
(615) 265-9551 **FAX:**

DATE REQUESTED: 12/02/94
CUST P.O.: DEM-1

SAMPLE : SAAD SITE

17 SOIL SAMPLES TO COMPOSITE R015-R021

RUSH

XX
ANALYSIS

TCLP Volatiles: See Attached

Notes: TENNESSEE SOIL - NON REGULATED

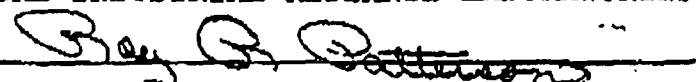
ALL RESULTS RECORDED IN PPM OR MG/L UNLESS OTHERWISE STATED.

XX

We hereby certify that the analytical procedures employed
are those approved by the Environmental Protection Agency or
other applicable methods for these analyses.

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By



ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 19069
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: 7 SOILS R015-R021

TCLP METHOD 1311
SAMPLE DATE: 11/29/94

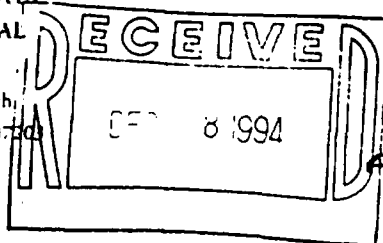
EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (9W-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	12/01/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	12/01/94	8240
D021	CHLOROBENZENE	100.	10.	ND	12/01/94	8240
D022	CHLOROFORM	5.0	1.0	ND	12/01/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	12/01/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	12/01/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	12/01/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	12/01/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	ND	12/01/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	0.3	12/01/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	12/01/94	8240

Performed in accordance with 40 CFR 261(08/29/90)



SPECIALIZED ASSAYS
ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203



2 4 1275

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063854

Sample ID: R001-R007 COMPOSITE

Date Collected: 11/29/94

Project: SAAD

Time Collected: 18:00

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
and Headspace Extraction	COMPLETED				12/ 1/94	1311
Benzene	< 2.0	mg/l	0.5	94	12/ 2/94	8240
Carbon tetrachloride	< 2.0	mg/l	0.5	96	12/ 2/94	8240
Chlorobenzene	< 2.0	mg/l	100	98	12/ 2/94	8240
Chloroform	< 2.0	mg/l	6.0	100	12/ 2/94	8240
1,2-Dichloroethane	< 2.0	mg/l	0.5	100	12/ 2/94	8240
1,1-Dichloroethene	< 2.0	mg/l	0.7	94	12/ 2/94	8240
Methylethylketone	< 20.0	mg/l	200	104	12/ 2/94	8240
Tetrachloroethene	< 2.0	mg/l	0.7	100	12/ 2/94	8240
Trichloroethene	22.3	mg/l	0.5	86	12/ 2/94	8240
Vinyl Chloride	< 2.0	mg/l	0.2	74	12/ 2/94	8240

TCLP preparation follows method 1311 SW-846 as revised November 24, 1992
(57 CFR 55114).

** QUALITY CONTROL DATA **

** Surrogate Recoveries **

Surrogate	% Recovery	Target Range
VOA Surrogate, 1,2-Dichloroethane, d4	104.	76 - 122
VOA Surrogate, Toluene d8	93.0	87 - 113



SPECIALIZED ASSAYS
ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203

2 4 1276

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063854

Sample ID: R001-R007 COMPOSITE

Date Collected: 11/29/94

Project: SAAD

Time Collected: 18:00

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

**** QUALITY CONTROL DATA ****

**** Surrogate Recoveries ****

Surrogate -----	% Recovery -----	Target Range -----
VOA Surrogate, 4-Bromofluorobenzene	94.0	82 - 121

Report Approved by: T. J. D. [Signature]



SPECIALIZED ASSAYS
ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203

2 4 1277

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063855

Sample ID: R008-R014 COMPOSITE

Date Collected: 11/30/94

Project: SAAD

Time Collected: 8:12

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
Two Headspace Extraction	COMPLETED				12/ 1/94	1311
Benzene	< 0.2	mg/l	0.5	94	12/ 2/94	8240
Carbon tetrachloride	< 0.2	mg/l	0.5	92	12/ 2/94	8240
Chlorobenzene	< 0.2	mg/l	100	100	12/ 2/94	8240
Chloroform	< 0.2	mg/l	6.0	98	12/ 2/94	8240
1,2-Dichloroethane	< 0.2	mg/l	0.5	102	12/ 2/94	8240
1,1-Dichloroethene	< 0.2	mg/l	0.7	94	12/ 2/94	8240
Methylethylketone	< 2.0	mg/l	200	126	12/ 2/94	8240
Tetrachloroethene	0.3	mg/l	0.7	100	12/ 2/94	8240
Trichloroethene	5.7	mg/l	0.5	82	12/ 2/94	8240
Vinyl Chloride	< 0.2	mg/l	0.2	76	12/ 2/94	8240

TCLP preparation follows method 1311 SW-846 as revised November 24, 1992
(57 CFR 55114).

** QUALITY CONTROL DATA **

** Surrogate Recoveries **

Surrogate	% Recovery	Target Range
VOA Surrogate, 1,2-Dichloroethane, d4	100.	76 - 122
VOA Surrogate, Toluene d8	102.	87 - 113



SPECIALIZED ASSAYS
ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203

2 4 1273

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063855

Sample ID: R008-R014 COMPOSITE

Date Collected: 11/30/94

Project: SAAD

Time Collected: 8:12

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

**** QUALITY CONTROL DATA ****

**** Surrogate Recoveries ****

<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
VOA Surrogate, 4-Bromofluorobenzene	102.	82 - 121

Report Approved by: T. J. Daulton



SPECIALIZED ASSAYS
ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203

2 4 1279

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063856

Sample ID: R015-R021 COMPOSITE

Date Collected: 11/29/94

Project: SAAD

Time Collected: 17:20

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
Zero Headspace Extraction	COMPLETED				12/ 1/94	1311
Benzene	< 0.1	mg/l	0.5	94	12/ 2/94	8240
Carbon tetrachloride	< 0.1	mg/l	0.5	88	12/ 2/94	8240
Chlorobenzene	< 0.1	mg/l	100	120	12/ 2/94	8240
Chloroform	< 0.1	mg/l	6.0	96	12/ 2/94	8240
1,2-Dichloroethane	< 0.1	mg/l	0.5	104	12/ 2/94	8240
1,1-Dichloroethene	< 0.1	mg/l	0.7	90	12/ 2/94	8240
Methylethylketone	< 1.0	mg/l	200	110	12/ 2/94	8240
Tetrachloroethene	< 0.1	mg/l	0.7	100	12/ 2/94	8240
Trichloroethene	0.4	mg/l	0.5	126	12/ 2/94	8240
Vinyl Chloride	< 0.1	mg/l	0.2	94	12/ 2/94	8240

TCLP preparation follows method 1311 SW-846 as revised November 24, 1992
(57 CFR 55114).

** QUALITY CONTROL DATA **

** Surrogate Recoveries **

Surrogate	% Recovery	Target Range
VOA Surrogate, 1,2-Dichloroethane, d4	104.	76 - 122
VOA Surrogate, Toluene d8	101.	87 - 113



ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203

2 4 1280

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063856

Sample ID: R015-R021 COMPOSITE

Date Collected: 11/29/94

Project: SAAD

Time Collected: 17:20

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

** QUALITY CONTROL DATA **

** Surrogate Recoveries **

<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
VDA Surrogate, 4-Bromofluorobenzene	98.0	82 - 121

Report Approved by: T. J. D. Smith



ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203

2 4 1201

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063857

Sample ID: R022-R028 COMPOSITE

Date Collected: 11/30/94

Project: SAAD

Time Collected: 8:35

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
Zero Headspace Extraction	COMPLETED				12/ 1/94	1311
Benzene	< 1.0	mg/l	0.5	98	12/ 2/94	8240
Carbon tetrachloride	< 1.0	mg/l	0.5	90	12/ 2/94	8240
Chlorobenzene	< 1.0	mg/l	100	102	12/ 2/94	8240
Chloroform	< 1.0	mg/l	6.0	100	12/ 2/94	8240
1,2-Dichloroethane	< 1.0	mg/l	0.5	106	12/ 2/94	8240
1,1-Dichloroethene	< 1.0	mg/l	0.7	96	12/ 2/94	8240
Methylethylketone	< 10.0	mg/l	200	120	12/ 2/94	8240
Tetrachloroethene	< 1.0	mg/l	0.7	98	12/ 2/94	8240
Trichloroethene	6.8	mg/l	0.5	100	12/ 2/94	8240
Vinyl Chloride	< 1.0	mg/l	0.2	84	12/ 2/94	8240

TCLP preparation follows method 1311 SW-846 as revised November 24, 1992
(57 CFR 55114).

** QUALITY CONTROL DATA **

** Surrogate Recoveries **

Surrogate	% Recovery	Target Range
VOA Surrogate, 1,2-Dichloroethane, d4	105.	76 - 122
VOA Surrogate, Toluene d8	98.0	87 - 113



SPECIALIZED ASSAYS
ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203

2 4 1202

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063857

Sample ID: R022-R028 COMPOSITE

Date Collected: 11/30/94

Project: SAAD

Time Collected: 8:35

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

** QUALITY CONTROL DATA **

** Surrogate Recoveries **

Surrogate -----	% Recovery -----	Target Range -----
VOA Surrogate, 4-Bromofluorobenzene	96.0	82 - 121

Report Approved by: T. J. D. Wells



300 12th Avenue South
Nashville, Tennessee 37203

ANALYTICAL REPORT

24 1993

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063858

Sample ID: R0290-R035 COMPOSITE

Date Collected: 11/30/94

Project: SAAD

Time Collected: 8:55

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

TCLP Results

Analyte	Result	Units	Reg Limit	Matrix Spike Recovery (%)	Date	Method
Zero Headspace Extraction	COMPLETED				12/ 1/94	1311
Benzene	< 0.1	mg/l	0.5	96	12/ 2/94	8240
Carbon tetrachloride	< 0.1	mg/l	0.5	88	12/ 2/94	8240
Chlorobenzene	< 0.1	mg/l	100	98	12/ 2/94	8240
Chloroform	< 0.1	mg/l	6.0	102	12/ 2/94	8240
1,2-Dichloroethane	< 0.1	mg/l	0.5	104	12/ 2/94	8240
1,1-Dichloroethene	< 0.1	mg/l	0.7	96	12/ 2/94	8240
Methylethylketone	< 1.0	mg/l	200	102	12/ 2/94	8240
Tetrachloroethene	< 0.1	mg/l	0.7	116	12/ 2/94	8240
Trichloroethene	2.7	mg/l	0.5	114	12/ 2/94	8240
Vinyl Chloride	< 0.1	mg/l	0.2	90	12/ 2/94	8240

TCLP preparation follows method 1311 SW-846 as revised November 24, 1992 (57 CFR 55114).

** QUALITY CONTROL DATA **

** Surrogate Recoveries **

Surrogate	% Recovery	Target Range
VOA Surrogate, 1,2-Dichloroethane, d4	110.	76 - 122
VOA Surrogate, Toluene d8	103.	87 - 113



SPECIALIZED ASSAYS
ENVIRONMENTAL

300 12th Avenue South
Nashville, Tennessee 37203

2 4 1204

ANALYTICAL REPORT

SIGNAL ENVIRONMENTAL 6190
ATTN. GREG VEAL
900 MANUFACTURES DRIVE
CHATTANOOGA, TN 37405

Lab Number: 94-A063858

Sample ID: R0290-R035 COMPOSITE

Date Collected: 11/30/94

Project: SAAD

Time Collected: 8:55

Project Name:

Date Received: 11/30/94

Sampler: GREG VEAL

Time Received: 11:00

State Certification:

Sample Type: Solid waste

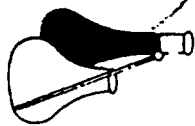
**** QUALITY CONTROL DATA ****

**** Surrogate Recoveries ****

<u>Surrogate</u>	<u>% Recovery</u>	<u>Target Range</u>
VOA Surrogate, 4-Bromofluorobenzene	114.	82 - 121

Report Approved by: T. J. D. Miller

APPENDIX 5



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES
4295 CROMWELL RD., SUITE 614
CHAATANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL

900 MANUFACTURERS RD

CHAAT. TN 37405

615-265-9551

Invoice To:

SIGNAL

SAAO SITE

Chain of Custody Record

Page 1 of 1

PROJECT SITE		PO#	
SAAO - Nashville		Dem-1	
SITE NAME			
SAAO - Dem-1			
COLLECTED BY (Signature)			
<i>[Signature]</i>			
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME
SAAO/27001A			10-27-94
SAAO/27001B			10-27-94
NO. OF CONTAINERS			
1			
ANALYSES			
TECP * TPH - DRO + G PIT PCBS FLASH POINT			
DATE REPORT DUE			
ASAP			
VERBAL/FAX/HARDCOPY			
REMARKS			
LAB ID NO. (for lab use only)			
METHOD			
TECP (FULL) 1311			
SEM-VOLATILES 8270			
VOLATILES 8240			
AODL-HALAGEN 8050			
8240			
TPH - CALIF. METHOD			
REMARKS			
ANALYZE HALAGEN AS ABOVE			
SAVE REMAINDER FOR FUTURE ANALYSIS			
<i>[Signature]</i>			
RECEIVED BY:		DATE	
TIME		RELINQUISHED BY:	
DATE		TIME	
RECEIVED BY:		DATE	
TIME		RELINQUISHED BY:	
DATE		TIME	
RECEIVED BY:		DATE	
TIME		RELINQUISHED BY:	
DATE		TIME	
RECEIVED BY:		DATE	
TIME		RELINQUISHED BY:	
DATE		TIME	

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:

ANY DISCREPANCIES CONTACT M. MATTHEWS, DAILY ONE ANALYSIS

RETURN SAMPLE SEALS TO SIGNAL

1206



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL
900 MANUFACTURER RD.
CHATT. TN 37405
615-265-9551

Invoice To:

SAME - SAAD

Chain of Custody Record

Page 1 of 3

PROJECT SITE		PO#		NO. OF CONTAINERS	FULL TCLP	ANALYSES				PROJECT #			
SITE NAME										DATE REPORT DUE			
COLLECTED BY (Signature)										VERBAL/FAX/HARDCOPY			
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME							LAB ID NO. (for lab use only)			
SAD 11/3002A		Soil	11-3/3:58	1	X					CONSOLIDATE 2A, 3A,			
SAD 11/3002B		Soil	11-3/3:59	1		HOLD 90 DAYS				4A 5A 6A, 7A & 8A			
SAD 11/3003A		Soil	11-3/4:02	1	X					FOR <u>ONE</u> ANALYSIS			
SAD 11/3003B		Soil	11-3/4:04	1		HOLD 90 DAYS							
SAD 11/3004A		Soil	11-3/4:05	1	X					HOLD ALL SAMPLES			
SAD 11/3004B		Soil	11-3/4:07	1		HOLD 90 DAYS				ENDING WITH B FOR 90 DAYS.			
SAD 11/3005A		Soil	11-3/4:09	1	X								
SAD 11/3005B		Soil	11-3/4:11	1		HOLD 90 DAYS				HOLD 9A, 10A, 11A, 12A			
SAD 11/3006A		Soil	11-3/4:13	1	X					FOR FUTURE CONSOLIDATION			
REMARKS										RELINQUISHED BY:		DATE	TIME
CALL MICHAEL MATTHEWS W/ QUESTIONS										Shay Val		11-4	11:46
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME		
Donna Adams	11/4/94	11:46											

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
C. Matthews	11/4/94	12:57							
REMARKS									

RETURN CUSTODY SEALS

2 4 1207



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

Invoice To:

SIGNAL ENVIRONMENTAL

SAMS

900 MANUFACTURES RD

CHATT TN 37405

615-265-9551

Chain of Custody Record

Page 2 of 3

PROJECT SITE	PO#	NO. OF CONTAINERS		ANALYSES	PROJECT #	DATE REPORT DUE	VERBAL/FAX/HARD COPY	LAB ID NO. (for lab use only)
SAA0 NASHVILLE	DEM-1					ASAP		
SITE NAME	SAA0 SITS							
COLLECTED BY (Signature)	<i>[Signature]</i>							
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME					
SAA0 11/30/66		Soil	11-3/11:15	1	HOLD 90 DAYS			
SAA0 11/30/74		Soil	11-3/11:16	1	X			
SAA0 11/30/75		Soil	11-3/11:19	1	HOLD 90 DAYS			
SAA0 11/30/84		Soil	11-3/11:21	1	X			
SAA0 11/30/85		Soil	11-3/11:25	1	HOLD 90 DAYS			
SAA0 11/30/94		Soil	11-3/11:27	1	HOLD 90 DAYS			
SAA0 11/30/95		Soil	11-3/11:29	1	HOLD 90 DAYS			
SAA0 11/30/10		Soil	11-3/11:30	1	HOLD 90 DAYS			
REMARKS								
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
Donna Gibson	11/14/94	11:46						

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
<i>[Signature]</i>	11-14-94	12:57							
REMARKS									

1208

24



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.

4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL
900 MANUFACTURES RD.
CHATT. TN 37405
615-265-9551

Invoice To:

SAMS-

Chain of Custody Record

Page 3 of 3

PROJECT SITE <u>SAND NASHVILLE</u>		PO# <u>DEM-1</u>		NO. OF CONTAINERS <u>FULL TELP</u>	ANALYSES				PROJECT #	
SITE NAME <u>SAS SITS</u>									DATE REPORT DUE <u>ASAP</u>	
COLLECTED BY (Signature) <u>Gray VVed</u>									VERBAL/FAX/HARDCOPY	
									LAB ID NO. (for lab use only)	
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/ TIME						REMARKS	
<u>SAD 11/30/11A</u>		<u>Soil</u>	<u>11/3/4:38</u>	<u>1</u>	<u>HOLD</u>					
<u>SAD 11/30/11B</u>		<u>Soil</u>	<u>11/3/4:37</u>	<u>1</u>	<u>HOLD 90 DAYS</u>				<u>Return custody</u>	<u>See other</u>
<u>SAD 11/30/12A</u>		<u>Soil</u>	<u>11/3/4:39</u>	<u>1</u>	<u>HOLD</u>				<u>Seals</u>	<u>CAC</u>
<u>SAD 11/30/12B</u>		<u>Soil</u>	<u>11/3/4:41</u>	<u>1</u>	<u>HOLD 90 DAYS</u>					
<u>SAD 11/30/12C</u>										
REMARKS								RELINQUISHED BY: <u>Gray VVed</u>		DATE <u>11-4-99</u>
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE <u>11-4-99</u>
<u>Donna Adams</u>	<u>11/1/99</u>	<u>11:46</u>								<u>11:46</u>

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
<u>C. Peterson</u>	<u>11/4/99</u>	<u>12:58</u>							
REMARKS									

24 1209



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.

4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL

P.O. Box 4270

CHATT. TN 37405

Invoice To:

SIGNAL ENVIRONMENTAL

P.O. Box 4270

CHATT. TN 37405

DEM-1

Chain of Custody Record

Page 1 of 1

PROJECT SITE		PO#	NO. OF CONTAINERS		ANALYSES		PROJECT #				
SITE NAME	COLLECTED BY (Signature)	SAMPLE ID	RUSH FACTOR	SAMPLE DATE/TIME	DATE REPORT DUE	VERBALE/HARD COPY	REMARKS				
SAAA SITE	SAAA Treasdays	DEM-1			11-21-94	265-9565					
SA0117013A	Sail	11-17/2:29	1	X	Consolidates 13A, 14A						
SA0117013B	Sail	11-17/2:39	1	Hold	15A For one Analysis						
SA0117014A	Sail	11-17/2:43	1	X	With 08A, 09A, 10A						
SA0117014B	Sail	11-17/2:43	1	Hold	11A 12A						
SA0117015A	Sail	11-17/2:50	1	X							
SA0117015B	Sail	11-17/2:50	1	Hold	90 Days						
SA0117016	Containers	11-17/2:35	1	X	Run by ITS SELF 1 sample						
REMARKS											
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
	11/17/94	11:20							Good
REMARKS									



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.

4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL
P.O. Box 4270
CHATT. TN 37405

Invoice To:

SAME - DEM-1

Chain of Custody Record

Page 1 of 2

PROJECT SITE		PO#		NO. OF CONTAINERS	ANALYSES								PROJECT #		
SITE NAME													DATE REPORT DUE		
COLLECTED BY (Signature)													VERBAL/FAX/HARD COPY		
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME										LAB ID NO. (for lab use only)		
SAD 11/17/025A		Soil	11-17/3:38	1	X								CONSOLIDATE 25A, 28A		
SAD 11/17/025B		Soil	11-17/3:38	1									HOLD For 90 Days	29A, 30A, 31A, 32A, 33A	
SAD 11/17/028A		Soil	11-17/3:47	1	X								For ONE ANALYSIS		
SAD 11/17/028B		Soil	11-17/3:47	1									HOLD 90 Days		
SAD 11/17/029A		Soil	11-17/3:51	1	X								RETURN CUSTODY SEALS		
SAD 11/17/029B		Soil	11-17/3:51	1											
SAD 11/17/030A		Soil	11-17/3:53	1	X										
SAD 11/17/030B		Soil	11-17/3:53	1									HOLD 90 Days		
SAD 11/17/031A		Soil	11-17/3:59	1	X										
REMARKS												RELINQUISHED BY:		DATE	TIME
												<i>[Signature]</i>		11-18	11:30
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
<i>[Signature]</i>	11/19/94	11:20					24		good
REMARKS									

2
4
1221



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.

4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL

P.O. Box 4270

CHATT. TN 37405

Invoice To:

SAME - DEM-1

Chain of Custody Record

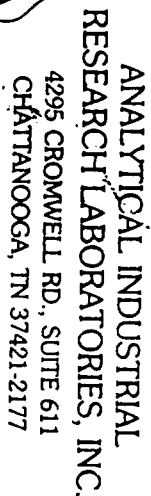
Page 2 of 2

PROJECT SITE		PO#	NO. OF CONTAINERS	ANALYSES				PROJECT #	
SITE NAME								DATE REPORT DUE	
COLLECTED BY (Signature)								VERBAL/FAX/HARDCOPY	
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE		DATE/TIME					LAB ID NO. (for lab use only)
SAD 11/17031A		Soil	11/17/4:59	1					
SAD 11/17032A		Soil	11/17/4:03	1	X				
SAD 11/17032B		Soil	11/17/4:03	1					
SAD 11/17033A		Soil	11/17/4:05	1	X				
SAD 11/17033B		Soil	11/17/4:05	1					
REMARKS				RELINQUISHED BY: <u>Ray V. Veal</u> DATE <u>11/18</u> TIME <u>11:20</u>					
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
<u>[Signature]</u>	<u>11/18/94</u>	<u>1120</u>					<u>4</u>		<u>good</u>
REMARKS									

2 4 1222



Report To:

SIGNAL ENVIRONMENTAL

P.O. Box 4170

Chart. TN 37405

Invoice To:

SA ME - 16m - 1

Chain of Custody Record

Page 2 of 2

PROJECT SITE		PO#	ANALYSES		PROJECT #	
SITE NAME	SITE	Dem-1				
SAAH Trench A1B					DATE REPORT DUE 11-25-94	
COLLECTED BY (Signature)					VERBAL/HARD COPY M116	
					265-9565	
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME	NO. OF CONTAINERS	REMARKS	LAB ID NO. (for lab use only)
SAA01170318		Soil	11/17/93	1	Hold 90 Days	
SAA01170319		Soil	11/17/93	1	X	
SAA01170320		Soil	11/17/93	1	Hold 90 Days	
SAA01170330		Soil	11/17/93	1	X	
SAA01170330		Soil	11/17/93	1	Hold 90 Days	
REMARKS						
RECEIVED BY: DATE TIME RELINQUISHED BY: DATE TIME						

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
<i>[Signature]</i>	11/19/94	1720					-4		<i>[Signature]</i>
REMARKS:									



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.

4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL
P.O. Box 4270
CHATT. TN 37405

Invoice To:

SAME - DEM-1

Chain of Custody Record

Page 2 of 2

PROJECT SITE <u>SAAA SITE</u>		PO# <u>DEM-1</u>		NO. OF CONTAINERS	ANALYSES						PROJECT #		
SITE NAME <u>SAAA TRANSDALE</u>		COLLECTED BY (Signature) <u>[Signature]</u>									DATE REPORT DUE <u>11-25-94</u>		
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/ TIME								VERBAL/FAX/HARDCOPY <u>[Signature]</u> <u>2659565</u>	LAB ID NO. (for lab use only)	
<u>SAD 11/17/035A</u>		<u>SOIL</u>	<u>11/17/4:11</u>	<u>1</u>	<u>X</u>						<u>SEE PAGE ONE</u>		
<u>SAD 11/17/035B</u>		<u>SOIL</u>	<u>11/17/4:11</u>	<u>1</u>		<u>HOLD</u>	<u>90 DAYS</u>				<u>SEE PAGE ONE</u>		
											<u>RETURN CUSTODY SAME</u>		
REMARKS										RELINQUISHED BY: <u>[Signature]</u>		DATE <u>11/18</u>	TIME <u>11:30</u>
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME		

LAB USE ONLY

RECEIVED FOR LAB BY: <u>[Signature]</u>	DATE <u>11/18/94</u>	TIME <u>11:30</u>	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C <u>24</u>	SEAL #	CONDITION: <u>Good</u>
REMARKS									



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.

4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL

P.O. BOX 4270

CHATT. TN 37405

Invoice To:

SAME - DEM-1

Chain of Custody Record

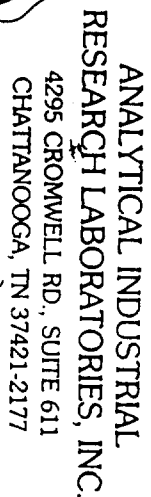
Page 1 of 2

PROJECT SITE		PO#	NO. OF CONTAINERS	ANALYSES				PROJECT #			
SITE NAME		COLLECTED BY (Signature)		Full Telp				DATE REPORT DUE			
FIELD SAMPLE ID								RUSH FACTOR	SAMPLE	DATE/TIME	VERBAL/FAX/HARDCOPY
											LAB ID NO. (for lab use only)
SAA 5175 <td>DEM-1<td></td><td></td><td></td><td></td><td></td><td></td></td>		DEM-1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
SAA TROUSDALE <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>											
SAD 11/17017A		Soil	11-17/3:15	1	X			CONSOLIDATE 17A, 18A			
SAD 11/17017B		Soil	11-17/3:15	1		HOLD 90 DAYS		17A, 20A, 21A, 22A			
SAD 11/17018A		Soil	11-17/3:17	1	X			23A, FOR ONE ANALYSIS			
SAD 11/17018B		Soil	11-17/3:17	1		HOLD 90 DAYS					
SAD 11/17019A		Soil	11-17/3:20	1	X						
SAD 11/17019B		Soil	11-17/3:20	1		HOLD 90 DAYS		RETAIN custody soils			
SAD 11/17020A		Soil	11-17/3:25	1	X						
SAD 11/17020B		Soil	11-17/3:25	1		HOLD 90 DAYS					
SAD 11/17021A		Soil	11-17/3:27	1	X						
REMARKS							RELINQUISHED BY:	DATE	TIME		
							Jay V. Val	11-18	11:30		
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
J. Val	11/18/94	11:30					24		good
REMARKS									

2
4
1225



SIGNAL ENVIRONNEMENT

Pa. Box 4270

CHATT. TA 32405

SHMS - Dec 07-1

Page 2 of 2

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
<i>[Signature]</i>	11/29/94	11:20					25		good
REMARKS:									



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.

4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

SIGNAL ENVIRONMENTAL

900 MANUFACTURES DR.

CHATT. TN 37405

615-265-9551

Invoice To:

SIGNAL ENVIRONMENTAL

DEM-1

Chain of Custody Record

Page 1 of 1

PROJECT SITE		PO#		NO. OF CONTAINERS	ANALYSES				PROJECT #	
SITE NAME										
SAA		DEM-1								
SAA SITE										
COLLECTED BY (Signature)		[Signature]								
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME							
R001	Rush	soil	11-29/5:37	1	X					
R002	Rush	soil	11-29/5:32	1	X					
R003	Rush	soil	11-29/5:38	1	X					
R004	Rush	soil	11-29/5:43	1	X					
R005	Rush	soil	11-29/5:47	1	X					
R006	Rush	soil	11-29/5:52	1	X					
R007	Rush	soil	11-29/6:00	1	X					
REMARKS				RELINQUISHED BY:				DATE	TIME	
				[Signature]				11-30	11:45	
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	
[Signature]	11/30/94	11:45	[Signature]	11/30/94	3:20P	[Signature]	11/30/94	3:20P	[Signature]	

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
[Signature]	11/30/94	15:13					<4		good
REMARKS									

24
1227



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

Signal Environmental
400 Manufacturers Rd.
Chatt, TN 37405
615-265-9551

Invoice To:

Signal Environmental
Box 1

Chain of Custody Record

Page 1 of 1

PROJECT SITE		PO#		NO. OF CONTAINERS		ANALYSES		PROJECT #		DATE REPORT DUE		VERBAL/FAX/HARD COPY		REMARKS		LAB ID NO.	
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME														
R015	Rush	Soil	11/29/500	1	X												
R016	Rush	Soil	11/29/500	1	X												
R017	Rush	Soil	11/29/507	1	Y												
R018	Rush	Soil	11/29/509	1	Y												
R019	Rush	Soil	11/29/510	1	Y												
R020	Rush	Soil	11/29/515	1	X												
R021	Rush	Soil	11/29/520	1	Y												
REMARKS																	
RECEIVED BY: DATE: 11/29/94 TIME: 11:30 AM RELINQUISHED BY: DATE: 11/29/94 TIME: 3:15 PM																	
RECEIVED FOR LAB BY: DATE: 11/29/94 TIME: 11:30 AM AIRBILL NO. OPENED BY: DATE: 11/29/94 TIME: 3:15 PM SEAL # CONDITION: good																	

SPECIALIZED ASSAYS - ENVIRONMENTAL



ANALYTICAL INDUSTRIAL
RESEARCH LABORATORIES, INC.

1295 CROMWELL RD., SUITE 611
CHATTANOOGA, TN 37421-2177

Report To:

Signal Environmental
900 MANUFACTURER DR.
CHATT. TN 37405
615-265-9551

Invoice To:

SIGNAL ENVIRONMENTAL
DEM-1

Chain of Custody Record

Page 1 of 1

PROJECT SITE <u>SAAA</u>		PO# <u>DEM-1</u>		NO. OF CONTAINERS <u>TECP-VOL</u>	ANALYSES				PROJECT# <u>DEM-1</u>			
SITE NAME <u>SAAA</u>					DATE REPORT DUE <u>12-2-94</u>							
COLLECTED BY (Signature) <u>[Signature]</u>					VERBAL/FAX/HARDCOPY <u>GREG V. VICAL</u>							
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/ TIME							REMARKS	LAB ID NO. (for lab use only)	
<u>R001</u>	<u>Rush</u>	<u>Soil</u>	<u>11-29/5:27</u>	<u>1</u>	<u>X</u>					<u>CONSOLIDATE INTO 1</u>		
<u>R002</u>	<u>Rush</u>	<u>Soil</u>	<u>11-29/5:32</u>	<u>1</u>	<u>X</u>					<u>SAMPLE + RUN TECP VOL</u>		
<u>R003</u>	<u>Rush</u>	<u>Soil</u>	<u>11-29/5:38</u>	<u>1</u>	<u>X</u>					<u>"RUSH"</u>		
<u>R004</u>	<u>Rush</u>	<u>Soil</u>	<u>11-29/5:43</u>	<u>1</u>	<u>X</u>							
<u>R005</u>	<u>Rush</u>	<u>Soil</u>	<u>11-29/5:47</u>	<u>1</u>	<u>X</u>							
<u>R006</u>	<u>Rush</u>	<u>Soil</u>	<u>11-29/5:52</u>	<u>1</u>	<u>X</u>							
<u>R007</u>	<u>Rush</u>	<u>Soil</u>	<u>11-29/6:00</u>	<u>1</u>	<u>X</u>							
REMARKS										RELINQUISHED BY: <u>[Signature]</u>	DATE <u>11-30</u>	TIME <u>11:09</u>
RECEIVED BY: <u>[Signature]</u>	DATE <u>11-30</u>	TIME <u>11:00</u>	RELINQUISHED BY: <u>[Signature]</u>	DATE <u>11-30</u>	TIME <u>11:21</u>	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	

LAB USE ONLY

RECEIVED FOR LAB BY: <u>[Signature]</u>	DATE <u>11-30</u>	TIME <u>11:00</u>	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
REMARKS <u>[Signature]</u>									

12-4 1209

SPECIALIZED ASSAYS ENVIRONMENTAL



~~ANALYTICAL LABORATORY~~
~~RESEARCH LABORATORIES INC.~~
~~4005 28th Avenue, Suite 211~~
~~Chattanooga, TN 37411-3171~~

JLV

Report To:

SIGNAL ENVIRONMENTAL

900 MANUFACTURES RD.

CHATT. TN 37405

615-265-9551

Invoice To:

SAME

Chain of Custody Record

Page 1 of 1

PROJECT SITE SAAD		PO# DEM-1		NO. OF CONTAINERS	ANALYSES	PROJECT # DEM-1					
SITE NAME SAAD SITE						DATE REPORT DUE 12-2-94					
COLLECTED BY (Signature) JLV						VERBAL/FAX/HARDCOPY mike FAX 615-265-9565					
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/ TIME			REMARKS LAB ID NO. (for lab use only)					
R008	Rush	Soil	11-30/8:00	1	X	CONSOLIDATE INTO 1 SAMPLE & RUN TELP-VOL "Rush"					
R009	Rush	Soil	11-30/8:02	1	X						
R010	Rush	Soil	11-30/8:04	1	X						
R011	Rush	Soil	11-30/8:06	1	X						
R012	Rush	Soil	11-30/8:08	1	X						
R013	Rush	Soil	11-30/8:10	1	X						
R014	Rush	Soil	11-30/8:12	1	X						
REMARKS						RELINQUISHED BY: JLV		DATE 11-30	TIME 11:00		
RECEIVED BY: JLV	DATE 11-30	TIME 11:00	RELINQUISHED BY: JLV	DATE 11-30	TIME 11:21	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME

LAB USE ONLY

RECEIVED FOR LAB BY: JLV	DATE 11/30	TIME 11:00	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
REMARKS									

24 1000

SPECIALIZED ASSAYS ENVIRONMENTAL



~~ANALYTICAL LABORATORY~~
~~885 BARBON LANE~~
~~CHATTANOOGA, TN 37405~~
~~423-265-9551~~
~~211~~

Report To:

Signal Environmental
 900 MANUFACTURERS DR.
 CHATT, TN 37405

Invoice To:

Signal Environmental
 Dem-1

615-265-9551

Chain of Custody Record

Page 1 of 1

PROJECT SITE		PO#		ANALYSES		PROJECT #	
SAA1		Dem-1				Dem-1	
SITE NAME		SAA1				DATE REPORT DUE	
COLLECTED BY (Signature)		[Signature]				12-2-94	
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME	NO. OF CONTAINERS	REMARKS	LAB ID NO.	
R015	Rush	Soil	11-29/5:00	1	Consolidate into 1	(for lab use only)	
R016	Rush	Soil	11-29/5:03	1	Sample + Run Tc/P-Vol		
R017	Rush	Soil	11-29/5:07	1	"Rush"		
R018	Rush	Soil	11-29/5:09	1			
R019	Rush	Soil	11-29/5:10	1			
R020	Rush	Soil	11-29/5:15	1			
R021	Rush	Soil	11-29/5:20	1			
REMARKS							
RECEIVED BY:				RELINQUISHED BY:		DATE	
11-30 11:00 [Signature]				11-30 11:24 [Signature]		11-30 11:00	

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
[Signature]	11-30	11:00							
REMARKS									

~~DECISION BY THE BOARD OF DIRECTORS, INC.~~

SIGNAL ENVIRONMENT

900 MANUFACTURES RD.

CHATT. TN 37405

615-265-9551

59m8

Page 1 of 1

PROJECT SITE		PO#	
SITE NAME		NO. OF CONTAINERS	
COLLECTED BY (Signature)		ANALYSES	
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME
Ro22	Rush	Soil	11-30/8:20
Ro23	Rush	Soil	11-30/8:23
Ro24	Rush	Soil	11-30/8:25
Ro25	Rush	Soil	11-30/8:27
Ro26	Rush	Soil	11-30/8:28
Ro27	Rush	Soil	11-30/8:30
Ro28	Rush	Soil	11-30/8:35

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
gsh	11-30	11:00	gsh	11-30	11:21						

PROJECT #		DATE REPORT DUE		VERBAL/FAX/HARDCOPY		REMARKS		LAB ID NO.	
P28-1		12-2-94		mte		(for lab use only)			

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
<i>[Signature]</i>	10/24/10								
REMARKS:	<i>[Handwritten notes]</i>								

SPECIALIZED ASSAYS ENVIRON SMALL



~~ANALYTICAL INSTRUMENTS~~
~~RESEARCH & DEVELOPMENT~~
~~ENVIRONMENTAL~~
~~LABORATORY~~
~~CHANDLER, ALABAMA~~

Report To:

Signal Environmental

900 MANUFACTURERS RD.

CHATT. TN 37405

615-265-9551

Invoice To:

Signal - Sample

Chain of Custody Record

Page 1 of 1

PROJECT SITE SAA 1		PO# DEM-1		PROJECT # DEM-1		DATE REPORT DUE 12-2-94		VERBAL/FAX/HARD COPY 615-265-9565		LAB ID NO. (for lab use only)	
SITE NAME SAA 1		COLLECTED BY (Signature) [Signature]		NO. OF CONTAINERS 1		ANALYSES TEPA-VOL		REMARKS CONDENSATE in #1 SAMPLE RUN TEPA-VOL "Rush"			
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE DATE/ TIME	NO. OF CONTAINERS	ANALYSES	REMARKS	LAB ID NO.					
RO29	Rush	Soil 11-30/8:40	1	X							
RO30	Rush	Soil 11-30/8:40	1	X							
RO31	Rush	Soil 11-30/8:45	1	X							
RO32	Rush	Soil 11-30/8:47	1	X							
RO33	Rush	Soil 11-30/8:50	1	X							
RO34	Rush	Soil 11-30/8:52	1	X							
RO35	Rush	Soil 11-30/8:55	1	X							
REMARKS											
RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
[Signature]	11-30-94	11:00	[Signature]	11-30-94	11:00	[Signature]	11-30-94	11:00	[Signature]	11-30-94	11:00

LAB USE ONLY

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
[Signature]	11-30-94	11:00							
REMARKS:									

SIGNAL ENVIRONMENTAL
SERVICES, INC.

900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample # SAD 10/27001A Date 10-27-94

Signature [Signature]

Print Name and Title

GREG V. VESAL

Seal Broken By: [Signature]

Date 10/31/94

SIGNAL ENVIRONMENTAL
SERVICES, INC.

900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample # SAD 10/27001B Date 10-27-94

Signature [Signature]

Print Name and Title

GREG V. VESAL

Seal Broken By: [Signature]

Date 10-31-94

17431

Signal Environmental

4 1304

SIGNAL ENVIRONMENTAL
SERVICES, INC.
900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample #	SAD 11/3002A	Date	11-3-94	Seal Broken By:	J. Deane
Signature	Greg V. Neal			Date	11-7-94
Print Name and Title	GREG V. NEAL				

SIGNAL ENVIRONMENTAL
SERVICES, INC.
900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample #	SAD 11/3003A	Date	11-3-94	Seal Broken By:	J. Deane
Signature	Greg V. Neal			Date	11-7-94
Print Name and Title	GREG V. NEAL				

SIGNAL ENVIRONMENTAL
SERVICES, INC.
900 Manufacturers,
Chattanooga, TN 37405

Sample #	SAD 11/3004A	Date	11-3-94	Seal Broken By:	J. Deane
Signature	Greg V. Neal			Date	11-7-94
Print Name and Title	GREG V. NEAL				

SIGNAL ENVIRONMENTAL
SERVICES, INC.
900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample #	SAD 11/3005A	Date	11-3-94	Seal Broken By:	J. Deane
Signature	Greg V. Neal			Date	11-7-94
Print Name and Title	GREG V. NEAL				

SIGNAL ENVIRONMENTAL
SERVICES, INC.
900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample #	SAD 11/3006A	Date	11-3-94	Seal Broken By:	J. Deane
Signature	Greg V. Neal			Date	11-7-94
Print Name and Title	GREG V. NEAL				

SIGNAL ENVIRONMENTAL
SERVICES
900 Manufacture
Chattanooga, TN

Sample #	SAD 11/3007A	Date	11-3-94	Seal Broken By:	J. Deane
Signature	Greg V. Neal			Date	11-7-94
Print Name and Title	GREG V. NEAL				

SIGNAL ENVIRONMENTAL
SERVICES, INC.
900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample #	SAD 11/3008A	Date	11-3-94	Seal Broken By:	J. Deane
Signature	Greg V. Neal			Date	11-7-94
Print Name and Title	GREG V. NEAL				

17262

18503

RECEIVED
NOV 23 1994SIGNAL ENVIRONMENTAL
SERVICES, INC.900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample # SA011/3011A Date 11-3-94

Signature Greg V. Vial

Print Name and Title

Greg V. VIAL

Seal Broken By:

Date 11-15-94

SIGNAL ENVIRONMENTAL
SERVICES, INC.900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample # SA011/3012A Date 11-3-94

Signature Greg V. Vial

Print Name and Title

Greg V. VIAL

Seal Broken By:

Date 11-18-94

SIGNAL ENVIRONMENTAL
SERVICES, INC.900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample # SA011/3009A Date 11-3-94

Signature Greg V. Vial

Print Name and Title

Greg V. VIAL

Seal Broken By:

Date 11-18-94

SIGNAL ENVIRONMENTAL
SERVICES, INC.900 Manufacturers, P.O. Box 4270
Chattanooga, TN 37405

Sample # SA011/3010A Date 11-3-94

Signature Greg V. Vial

Print Name and Title

Greg V. VIAL

Seal Broken By:

Date 11-18-94

18503 - 18507

SIGNAL ENVIRONMENTAL

SERVICES, INC.

900 Manufacturers, P.O. Box 4270

Chattanooga, TN 37405

Sample # SAD 11/1713-16 Date 11-17-94

Signature [Signature]

Print Name and Title
GREG V. VEAL

Seal Broken By:

[Signature]

Date 11/18/94

SIGNAL ENVIRONMENTAL

SERVICES, INC.

900 Manufacturers, P.O. Box 4270

Chattanooga, TN 37405

Sample # SAD 11/17 Date 11-17-94

Signature [Signature]

Print Name and Title
GREG V. VEAL

Seal Broken By:

[Signature]

Date 11/18/94

SIGNAL ENVIRONMENTAL

SERVICES, INC.

900 Manufacturers, P.O. Box 4270

Chattanooga, TN 37405

Sample # SAD 11/17 Date 11-17-94

Signature [Signature]

Print Name and Title
GREG V. VEAL

Seal Broken By:

[Signature]

Date 11/18/94

SIGNAL ENVIRONMENTAL

SERVICES, INC.

900 Manufacturers, P.O. Box 4270

Chattanooga, TN 37405

Sample # SAD 11/17 Date 11-17-94

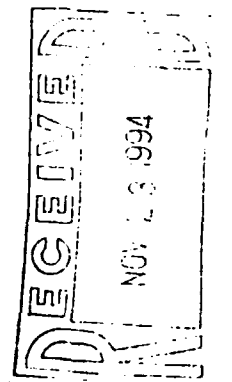
Signature [Signature]

Print Name and Title
GREG V. VEAL

Seal Broken By:

[Signature]

Date 11/18/94



4 7

1807

APPENDIX 6

Please print or type
(Form designed for use on alternate transporter.)

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No. W-0-0-0-1	2. Page 1 of /		
3. Generator's Name and Mailing Address J.P. SAAD TROUSDAIS SITS 3655 TROUSDAIS DR. NASHVILLE TN 37211						
4. Generator's Phone (615) 333-0397						
5. Transporter 1 Company Name MC TANK Transport, Inc.		6. US EPA ID Number 1CHD987C16C03				
7. Transporter 2 Company Name		8. US EPA ID Number				
9. Designated Facility Name and Site Address LAIDLAW ENVIRONMENTAL SERVICES (WT), INC 1240 ANTICCH PIKE ANTICCH TN 37013		10. US EPA ID Number 1TND000772277		A. Transporter's Phone (615) 793-3802 B. Transporter's Phone C. Facility's Phone (615) 833-2059		
11. Waste Shipping Name and Description a. NON-HAZARDOUS WATER NOS. (PIT WATER) b. c. d.			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
			001	TT	05000	G
D. Additional Descriptions for Materials Listed Above			E. Handling Codes for Wastes Listed Above			
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.						
Printed/Typed Name GREG V. NEAL THE SAAD SITS AS AINTECTION CHAIE OF STORIN, COMITTES		Signature [Signature]		Month Day Year 1 2 0 7 9 4		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Joe R. McAuley		Signature [Signature]		Month Day Year 1 2 0 7 9 4		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		

GENERATOR
TRANSPORTER
FACILITY

4 1310

Print or type
designated for use on this (12-plate) document.**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.

Manifest
Document No.
W000022. Page 1
of

3. Generator's Name and Mailing Address

J.P. SAAD TROUSDALE SITE
5655 TROUSDALE DR. NASHVILLE TN 37211

4. Generator's Phone (615) 333-0397

5. Transporter 1 Company Name

MC TANK TRANSPORT INC.

6. US EPA ID Number

10H.D.9.8.7.0.1.60.03

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

LAIDAW ENVIRONMENTAL SERVICES (WT) INC.

1640 ANTIOCH PIKE

ANTIOCH, TN 37013

10. US EPA ID Number

1T.N.D.0.0.0.7.7.227.7

A. Transporter's Phone (615) 793-3802

B. Transporter's Phone

C. Facility's Phone

(615) 833-2059

11. Waste Shipping Name and Description

a. NOS-HAZARDOUS WATER N.O.S.
(PIT WATER)12. Containers
No. Type13. Total
Quantity14. Unit
Wt/Vol

001 T.T 05000 G

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name GREG VIVIAL

Signature

Month Day Year

AS AGENT FOR TON BEHALF OF THE SAAD SITE COMMITTEE

Signature

Month Day Year

11-20-77

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

JOE C. LEAR

Signature

JOE C. LEAR

Month Day Year

11-20-77

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

GENERATOR

TRANSPORTER

FACILITY

12-BLS-C6 Rev. 9/92

**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.

Manifest
Document No.
W-0-0-0-4

2. Page 1
of 1

3. Generator's Name and Mailing Address

J.P. SAAD TROUSDAIS SITE
3655 TROUSDAIS Dr. NASHVILLE TN 37211
Generator's Phone (615) 333-0397

5. Transporter 1 Company Name

MC TANK TRANSPORT INC

6. US EPA ID Number

10-H-0-9-8-7-0-1-6-0-0-3

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

LAWLAW ENVIRONMENTAL SERVICES (W.T.) INC.
1640 ANTIOCH PIKE
ANTIOCH, TN 37013

10. US EPA ID Number

T.N.D-0-0-0-7-7-2-2-7-7

A. Transporter's Phone 615-743-3802

B. Transporter's Phone

C. Facility's Phone

615-833-2059

11. Waste Shipping Name and Description

a. NON HAZARDOUS WATER NO. 2,
(P.T. WATER)

12. Containers
No. Type

13. Total
Quantity

14. Unit
Wt./Vol

001 T.T 050.00 G

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name GREG V. VEAL

Signature

Month Day Year

AS AGENT FOR AND ON BEHALF OF TROUSDAIS SITE STEERING COMMITTEE

Signature

11-21-07 94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

JAE C. LEAR

Signature

JAE C. LEAR

Month Day Year

11-21-07 94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

ORIGINAL-RETURN TO GENERATOR

12-BLS-CB Rev. 9/92

GENERATOR

TRANSPORTER

FACILITY

ANALYTICAL INDUSTRIAL RESEARCH LABORATORY

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177
(615) 894-8102

2 4 1313

LAB. NO.: 941104-17763

CUSTOMER: 1237
SIGNAL ENVIRONMENTAL SERVICES
P.O. BOX 4270
CHATTANOOGA, TN 37405

DATE RECD.: 11/04/94
SAMPLE DATE: 11/03/94

ATTENTION: MICHAEL MATTHEWS
(615) 265-9551 FAX:

DATE REQUESTED :
CUST P.O.: DEM-1

SAMPLE : SAAD NASHVILLE SAAD SITE
: SAD11/3001W WATER

ASAP

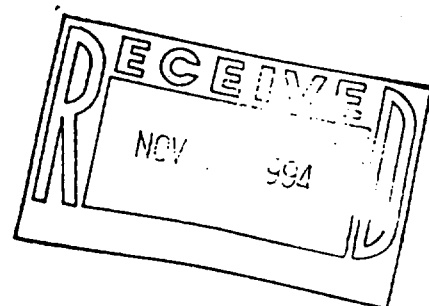
XX

ANALYSIS

			M.D.L.	Methods	Date	Initial
BOD	31	mg/L	2	405.1	11-04-94	MG
TSS	81	mg/L	1	160.2	11-08-94	MG
TDS	400	mg/L	1	160.3	11-07-94	MG
MBAS	2.15	mg/L	0.025	425.1	11-07-94	PL
Ammonia	2.05	mg/L	0.05	350.2	11-09-94	TB
pH	7.4	mg/L	N/A	150.1	11-04-94	PG
Oil & Grease	24.4	mg/L	0.1	413.1	11-09-94	PL
TKN	75.94	mg/L	0.05	351.3	11-09-94	TB
Iron	3.04	mg/L	0.007	200.7	11-09-94	DS
Manganese	0.930	mg/L	0.002	200.7	11-09-94	DS

HP TOXICITY CHARACTERISTIC CONSTITUENTS:

SEE ATTACHED



Notes:

XX

We hereby certify that the analytical procedures employed
are those approved by the Environmental Protection Agency or
other applicable methods for these analyses.

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By

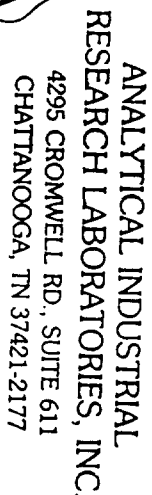
ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.
4295 CROMWELL RD., STE 611
CHATTANOOGA, TN 37421-2177

AIRL SAMPLE I.D. 17763
SIGNAL ENVIRONMENTAL SERVICES
SAMPLE: SAD11/3001W

TCLP METHOD 1311
SAMPLE DATE: 11/03/94

EPA HW NUMBER	CONSTITUENT	REGULATORY LEVEL(mg/L)	MDL (mg/L)	RESULT (mg/L)	DATE ANALYZED	METHOD (BW-846)
TCLP VOLATILES (ZHS)						
D018	BENZENE	0.5	0.1	ND	11/09/94	8240
D019	CARBON TETRACHLORIDE	0.5	0.1	ND	11/09/94	8240
D021	CHLOROBENZENE	100.	10.	ND	11/09/94	8240
D022	CHLOROFORM	6.0	1.0	ND	11/09/94	8240
D027	1,4-DICHLOROBENZENE	7.5	1.0	ND	11/09/94	8240
D028	1,2-DICHLOROETHANE	0.5	0.1	ND	11/09/94	8240
D029	1,1-DICHLOROETHYLENE	0.7	0.1	ND	11/09/94	8240
D035	METHYL ETHYL KETONE	200.	20	ND	11/09/94	8240
D039	TETRACHLOROETHYLENE	0.7	0.1	ND	11/09/94	8240
D040	TRICHLOROETHYLENE	0.5	0.1	ND	11/09/94	8240
D043	VINYL CHLORIDE	0.2	0.1	ND	11/09/94	8240
TCLP SEMIVOLATILES						
TCLP ACIDS						
D023	o-CRESOL	200	1.0	ND	11/09/94	8270
D024	m-CRESOL	200	1.0	ND	11/09/94	8270
D025	p-CRESOL	200	1.0	ND	11/09/94	8270
D026	CRESOLS (TOTAL)	200	1.0	ND	11/09/94	8270
D037	PENTACHLOROPHENOL	100	1.0	ND	11/09/94	8270
D041	2,4,5-TRICHLOROPHENOL	400	1.0	ND	11/09/94	8270
D042	2,4,6-TRICHLOROPHENOL	2.0	1.0	ND	11/09/94	8270
TCLP BASE/NEUTRALS						
D030	2,4-DINITROTOLUENE	0.13	0.05	ND	11/09/94	8270
D032	HEXACHLOROBENZENE	0.13	0.05	ND	11/09/94	8270
D033	HEXACHLORO-1,3-BUTADIENE	0.5	0.1	ND	11/09/94	8270
D034	HEXACHLOROETHANE	3.0	0.5	ND	11/09/94	8270
D036	NITROBENZENE	2.0	1.0	ND	11/09/94	8270
D038	PYRIDINE	5.0	2.5	ND	11/09/94	8270
TCLP PESTICIDES						
D020	CHLORDANE	0.03	0.01	ND	11/09/94	8080
D012	ENDRIN	0.03	0.01	ND	11/09/94	8080
D031	HEPTACHLOR	0.008	0.005	ND	11/09/94	8080
	-EPOXIDE	0.008	0.005	ND	11/09/94	8080
D013	LINDANE	0.4	0.1	ND	11/09/94	8080
D014	METHOXYCHLOR	10	1.0	ND	11/09/94	8080
D015	TOXAPHENE	0.5	0.1	ND	11/09/94	8080
TCLP HERBICIDES						
D016	2,4-D	10.0	0.5	ND	11/09/94	8150
D017	2,4,5-TP (SILVEX)	1.0	0.5	ND	11/09/94	8150
TCLP METALS						
D004	ARSENIC	5.0	0.5	ND	11/09/94	6010
D005	BARIUM	100	5.0	ND	11/09/94	6010
D006	CADMIUM	1.0	0.1	ND	11/09/94	6010
D007	CHROMIUM	5.0	0.5	ND	11/09/94	6010
D008	LEAD	5.0	0.5	ND	11/09/94	6010
D009	MERCURY	0.2	0.01	ND	11/09/94	7470
D010	SELENIUM	1.0	0.1	ND	11/09/94	6010
D011	SILVER	5.0	0.5	ND	11/09/94	6010

Performed in accordance with 40 CFR 261(06/29/90)



SIGNAL ENVIRONMENTAL

900 MANUFACTURERS RD.

Chart: 7d 37405

615-1265-9551

Shm B

Page 1 of 1

PROJECT SITE		PO #	
SAAO Nashvilles		Dgm-1	
SITE NAME		SAAO SITS	
COLLECTED BY (Signature)		Jhey Wald	
FIELD SAMPLE ID	RUSH FACTOR	SAMPLE	DATE/TIME
SAAO 11/3001W	✓	WATER	43/5:16
NO. OF CONTAINERS		10 X X X X X	
ANALYSES		TCLP, Fe, Mn, TKN, D/LIGANDS, MBAS, TSS, BOD, SS, AMMONIA, pH	
REMARKS		RETURN CUSTOMER SEND TO S/GNAL	
RECEIVED BY: Dgm-1		DATE: 11/14/94	
TIME: 11:44		RELINQUISHED BY: Jhey Wald	
DATE: 11:44		TIME: 11:46	

RECEIVED FOR LAB BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
<i>[Signature]</i>	10/25/71	12:51							
REMARKS									

1591

APPENDIX 7

24 1317

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA ID No.

TNA 06583354310001

Manifest
Document No.2. Page 1
of 1Information in the shaded areas is
not required by Federal law.

3. Generator's Name and Mailing Address

J.P. SAAD TROUSDALE SITE
3655 TROUSDALE DR. NASHVILLE TN 37211

4. Generator's Phone (615) 333-0397

5. Transporter 1 Company Name

ROBERT D. WOOD

6. US EPA ID Number

ALD 067135891

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CREEK ROAD
FORT WAYNE IN 46816

10. US EPA ID Number

IN 078911146

A. State Manifest Document Number

B. State Generator's ID

C. State Transporter's ID

D. State Facility's ID

E. State Facility's Phone

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

I. Waste No.

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

HM

a. RQ, HAZARDOUS WASTE, SOLID, N.O.S. (D040),
9, NA 3077 PKT (D040)

12. Containers

No.

Type

13. Total
Quantity14. Unit
Wt/Vol

1. Waste No.

001 DT 46000 P

D040

J. Additional Descriptions for Materials Listed Above

BR 5960

K. Handling Codes for Wastes Listed Above

D-81 LANDFILL

15. Special Handling Instructions and Additional Information

RETURN MANIFEST TO: PO BOX 4270
CHATTANOOGA TN. 37405CWM EMERGENCY RESPONSE INFO
1-800-765-8713

24HR # 1-800-925-9551

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

THE SAAD SITE
BE AGENCY FOR THE CHAIR STEERING COMMITTEE

Signature

[Signature]

Month Day Year

11 20 79

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Kenneth A. Donaldson

Signature

Kenneth A. Donaldson

Month Day Year

11 20 79

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year

GENERATOR'S COPY

2 4 1313

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TN-065833543	Manifest Document No. 0002	2. Page 1 of	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address J. P. SAAR TRANSWASTE SITE 3655 TRANSWASTE DR. NASHVILLE TN 37211		4. Generator's Phone (615) 333-0397			
5. Transporter 1 Company Name ROBBIE D. WOOD		6. US EPA ID Number AL-067138891		7. Transporter 1 Phone 205-744-8440	
7. Transporter 2 Company Name		8. US EPA ID Number		9. Transporter 2 Phone	
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD FULTON WAYNE TN 37606		10. US EPA ID Number EN-078911146		11. Facility Phone 219-447-5585	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers	13. Total Quantity	14. Unit	15. Waste No.
a. <input checked="" type="checkbox"/> RQ, HAZARDOUS WASTE SOLID LIQUIDS (D0110), 9, NA3077 P6 III (D040)		No. Type			
			001 AT 46000 P		D040
b.					
c.					
d.					
16. Additional Description for Materials Listed Above		17. Handling Codes for Wastes Listed Above			
B-05		D-81			
18. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4270 CHATT. TN 37405		CWM EMERGENCY RESPONSE INFO 1800-765-5713 24 Hrs # 1800-925-9551			
19. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name A. SAAR FOR J. P. SAAR SITE		Signature [Signature]		Month Day Year 11/21/94	
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature [Signature]		Month Day Year 11/21/94	
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month Day Year	
19. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name		Signature		Month Day Year	

GENERATOR'S COPY

24 1319

Please print or type

(Form 8700-22)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J.P. SAAD TRO-SOALIS SITE 3655 TRO-SOALIS DR. NASHVILLE TN 37211		1. Generator's US EPA ID No. TN-065833543		A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name ROBBIE D. WOOD		6. US EPA ID Number AL-0067138891		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 265-774-8440		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD E-RT WAYNE TN 46806		10. US EPA ID Number IN-0078911146		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers	13. Total Quantity	14. Unit Wt/Vol	1. Waste No.	
a. <input checked="" type="checkbox"/> RM, HAZARDOUS WASTE, SOLID, N.E.S. (D040), 9, NA 3077 PK III (D040)		No. Type			001 D-T 46.000 P D040	
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above BR 5960		K. Handling Codes for Wastes Listed Above D-81 LANDFILL				
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: PO BOX 4270 CHATT, TN 37405		CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24 hr # 1800-925-9551				
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name AS AGENT FOR TRO-SOALIS SITE		Signature [Signature]		Month Day Year 11 20 24		
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name [Signature]		Signature [Signature]		Month Day Year 12 07 94		
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		

Please print or type

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J.P. SAAD TROUSDALE SITE 3655 TROUSDALE DR NASHVILLE TN 37211		1. Generator's US EPA ID No. T.N.D.0.6.5.8.3.3.5.4.3.17.0.0.0.4		A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name ROBBIE D. WOOD		6. US EPA ID Number 1A.L.D.0.6.7.1.3.8.8.9.1		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 205-744-8441		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD EAST WAYNE IN 46806		10. US EPA ID Number TEND.0.7.8.9.1.1.1.4.6		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity	14. Unit Wt/Vol	1. Waste No.
a. <input checked="" type="checkbox"/> RQ, HAZARDOUS WASTE, SOLID, NOS (D040), 9, NA3077 PG III (D040)		No. Type				
b.				00.1	DT	48000 P D040
c.						
d.						
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above				
BR 5960		D-81 LANDFILL				
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4270 CHATT. TN 37405		CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24HR # 1800-925-9551				
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name AS AGENT FOR TROUSDALE SITE		Signature [Signature]		Month Day Year 11/21/97		
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name Charles R Jones		Signature [Signature]		Month Day Year 12/10/97
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		Month Day Year
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		

GENERATOR

TRANSPORTER

FACILITY

2 4 1321

Please print or type
in duplicate, using one copy for each of the following:

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J. P. SAAD TROUSDALE SITE 3655 TROUSDALE DR. NASHVILLE TN 37211		TND 0-6-5-8-3-3-5-4-3		A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name DART TRUCKING Co. INC		6. US EPA ID Number 10-HDD-0-9-8-6-5-8-2-5		C. State Transporter's ID T237KCCO		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 216-533-9841		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT INC. 4636 ADAMS CENTER ROAD FORT WAYNE IN 46806		10. US EPA ID Number TND 0-7-8-9-1-1-4-6		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers	13. Total Quantity	14. Unit Wt/Vol	1. Waste No.	
a. <input checked="" type="checkbox"/> RA, HAZARDOUS WASTE, SOLID, NIS (D040), 9, VA 3027 PG III (D040)		No. Type				
		001 DT	46.000	P	D040	
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above				
B25960		D-81 LANDFILL				
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405		CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24 Hr # 1-800-925-9551				
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name AS AGENT FOR THE BEHALF OF THE SAAD SITE SITING COMMITTEE		Signature J. Reg. U. Vel		Month Day Year 11/2/08/94		
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature James L. Crump 936		Month Day Year 12/08/94		
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		

24 1322

Please print or type

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TN A-065333543	Manifest Document No. A-0006	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address JP SAA TROUSDAIS SITE 3655 TROUSDAIS DR. NASHVILLE TN 37211				A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name ROBERT D. WARD		6. US EPA ID Number AL A-067138891		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 205-744-8640		
9. Designated Facility Name and Site Address CHEMICAL WASTE WASTE MANAGEMENT INC. 1636 ADAMS CENTER RD. MANASSAS VA 20108		10. US EPA ID Number TN A-078911146		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol
a. <input checked="" type="checkbox"/> RM, HAZARDOUS WASTE, Solid, N.O.S. (D040), 9, NA 3077 Pk III (D040)				001 DT	47000 P	D040
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above BR 5960				K. Handling Codes for Wastes Listed Above D-81 LANDFILL		
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4276 CHATT. TN 37405				CWM EMERGENCY RESPONSE INFO 1-800 765-8713 24 Hr * 1-800-925-9551		
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name AS AGENT FOR TROUSDAIS SITE		Signature [Signature]		Month Day Year 12/03/94		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Larry Redden		Signature [Signature]		Month Day Year 12/05/94		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		

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Please print or type

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TN 0065833543	Manifest Document No. 116007	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J.P. SAAD TRENDALE SITE 3655 TRENDALE DR. NASHVILLE TN 37211				A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name ROEBIG & WILCOX		6. US EPA ID Number AL0067138891		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 205-7448440		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD FERTWAY, TN 37066		10. US EPA ID Number TN 0078911146		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers	13. Total Quantity	14. Unit
				No.	Type	Wt/Vol
a. X RQ, HAZARDOUS WASTE SOLID, N.O.S. (D040), 9, NA 3077 PG III (D040)				001	AT	42,400 P
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
BR5960				D-81-LANAF.11		
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405				CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24hr # 1-800-925-9551		
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name AS HAZARDOUS WASTE TRENDALE SITE				Signature [Signature]		Month Day Year 11/21/87
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name GARY CAMPBELL #60				Signature [Signature]		Month Day Year 11/21/87
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name				Signature		Month Day Year
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name				Signature		Month Day Year

2 4 1324

Please print or type

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TN D.0.6.5.8.3.35.4.3	Manifest Document No. 10-008	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J.F. SAAD TROUSDALE SITE 5655 TROUSDALE DR. NASHVILLE TN 37211				A. State Manifest Document Number		
4. Generator's Phone (615) 333-0347				B. State Generator's ID		
5. Transporter 1 Company Name REBBIE D. WOOD		6. US EPA ID Number ALD.0.6.7.1.38.89.1		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 205-7448440		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4634 ADAMS CENTER ROAD FORT WALKER IN 46806		10. US EPA ID Number F.N.A.0.7.8.4.1.1.146		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers	13. Total Quantity	14. Unit Wt/Vol
				No.	Type	L. Waste No.
a. <input checked="" type="checkbox"/> RM, HAZARDOUS WASTE, SOLID, N.O.S. (D040), 9, NA 3077 PF III (D040)				001	DT	48000 P D040
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above BR5960				K. Handling Codes for Wastes Listed Above D-81 LANDFILL		
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. BOX 4270 CHATT TN 37405				CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24hr 1-800-925-9551		
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name THE SAAD SITE AS ASST. FIELD ENGINEER OF SCHED. COMMITTEE		Signature [Signature]		Month Day Year 11/2/08/94		
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature [Signature]		Month Day Year 11/2/08/94		
Printed/Typed Name Jeffrey Lawley		Signature [Signature]		Month Day Year 11/2/08/94		
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month Day Year		
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name		Signature		Month Day Year		

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UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J. P. SAND TRONDAIS SITS 3655 TRONDAIS DR. NASHVILLE TN 37211		1. Generator's US EPA ID No. T.N.D.0.6.5.8.3.35.4.3		A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397		6. US EPA ID Number 1AL.A0.6.7.1.38.89.1		B. State Generator's ID		
5. Transporter 1 Company Name RABBIT D. WOOD		7. Transporter 2 Company Name		C. State Transporter's ID		
6. US EPA ID Number		8. US EPA ID Number		D. Transporter's Phone 265-744-8940		
7. Transporter 2 Company Name		9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD FORT WAYNE IN 46806		E. State Transporter's ID		
10. US EPA ID Number		10. US EPA ID Number E.N.D.0.7.8.9.1.1.1.4.6		F. Transporter's Phone		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity		
a. X RQ, HAZARDOUS WASTE, SOLID, N.O.S. (D040), 9, NH 3077 PG-II (D040)		No. Type		14. Unit Wt/Vol		
b.		001 DT 47000 P		A040		
c.						
d.						
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above		D-81 LANDFILL		
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4270 CHATT. TN 37405		CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24 Hr # 1-800-925-9551				
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Printed/Typed Name AS AGENT FOR JEN BENTLEY SITSING COMMITTEE		Signature J. P. Sand		Month Day Year 11/2/08/94		
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed/Typed Name WILLIE FORTNER		Signature Willie Fortner		
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed/Typed Name		Signature		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		

2 4 1326

Please print or type
Form designed for use on

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J.P. SNAD TRANSDAIRS SITE 3655 TRANSDAIR DR. NASHVILLE TN 37211				A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name DABBAIE D. WOOD		6. US EPA ID Number LA-LA-06-71-3-88-9-1		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 205-744-8440		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC 4636 HAMS CENTER ROAD FORT WAYNE IN 46806		10. US EPA ID Number IN-LA-07-8-9-1-1-1-4-6		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers	13. Total Quantity	14. Unit Wt/Vol
a. <input checked="" type="checkbox"/> RM, HAZARDOUS WASTE, SOLID, NOS. (D040), 9, NA 3072 P6II (D040)				No. Type		
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
BR 5960				D-81 LANDFILL		
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. BOX 4270 CHATT. TN 37405 CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24 hr 1-800-925-9551						
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Printed/Typed Name ADAM L. FORTENBACH FOR THE SNAAD SITE				Signature [Signature]		Month Day Year 11/2/05/94
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name MIKE THOMAS				Signature [Signature]		Month Day Year 11/2/05/94
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name				Signature		Month Day Year
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name				Signature		Month Day Year

2 4 1327

Please print or type
Form designed for use on this date

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T.N. A.C. 6.5.8.3.3.5.4.3100.1.1	Manifest Document No. 1.1	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J.P. SHAD TRANSDATE SITE 3655 TRANSDATE DR. NASHVILLE TN 37211				A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name Robb's A. Wick		6. US EPA ID Number A.L.A.C. 6.7.1.3.8.891		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 265-744-8440		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT 4636 ADAMS CENTER ROAD FORT WAYNE IN 46806		10. US EPA ID Number T.N. A.C. 7.8.1.1.1.46		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers	13. Total Quantity	14. Unit
a. <input checked="" type="checkbox"/> RQ, HAZARDOUS WASTE, SOLID, N.O.S. (D040), 9, NA 3077 PL III (D040)				No. Type		Wt/Vol
					4.7000	P
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
BR5460				D-81 LANDFILL		
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4790 CHATT. TN. 37405 CWM EMERGENCY RESPONSE SUFU 1-800-765-8713 24 Hr # 1-800-925-9551						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name AS HAZARDOUS WASTE SUPERVISOR		Signature T.H. SHAD SITE		Month Day Year 1.2.08.94		
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature George Parker		Month Day Year 1.2.08.94		
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		

2 4 1328

11 or type
designed for use on 112 mm (4 1/2 in) paper

Form 8700-22, Rev. 9-92

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. T.V. 0-0-6-5-8-3-3-543	Manifest Document No. R0012	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J.P. SHAD TRANSDAIR SITE 3655 TRANSDAIR DR. NASHVILLE TN 37211				A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name NORTH D. WOODS		6. US EPA ID Number A.L.A. 0-6-7-1-3-5891		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 205-744-8440		
				E. State Transporter's ID		
				F. Transporter's Phone		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT INC. 4636 ADAMS CENTER ROAD EAST WAYNE TN 37066		10. US EPA ID Number E.N. 0-0-7-8-9-1-1-146		G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers	13. Total Quantity	14. Unit Wt/Vol
a. <input checked="" type="checkbox"/> RQ, HAZARDOUS WASTE, SOLID, LIQ, (D040), 9, NA 3077 PK III (D040)				No. Type		
					44000	P D040
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
BR 5960				D-81-LANDFILL		
15. Special Handling Instructions and Additional Information RETAIN MANIFEST TO: P.O. Box 4270 CHATT. TN 37405				CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24 hr # 1-800-925-9551		
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name AS HIGINT FERTILIZER BEHALF OF THE SHAD SITE				Signature [Signature]		Month Day Year 12/08/94
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name SYLVESTER CONWELL				Signature [Signature]		Month Day Year 12/08/94
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name				Signature		Month Day Year
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name				Signature		Month Day Year

Please print or type
(Form designed for use on either 112 or 112-1000)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TN.D.0.6.5.8.3.3.543		Manifest Document No. H.O.C.13		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.							
3. Generator's Name and Mailing Address J P SAAD TRANSDALE SITS 3655 TRANSDALE DR, NASHVILLE TN 37211						A. State Manifest Document Number									
4. Generator's Phone (615) 333-0397						B. State Generator's ID									
5. Transporter 1 Company Name ROBBIE D. WOOD			6. US EPA ID Number ALD.0.6.7.1.3.8891			C. State Transporter's ID									
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone 205-744-8440									
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC 4636 ADAMS CENTER ROAD FORT WAYNE IN 46806						E. State Transporter's ID									
						F. Transporter's Phone									
10. US EPA ID Number IND.0.7.8.9.1.1.46						G. State Facility's ID									
						H. Facility's Phone 219-447-5585									
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.			
a. <input checked="" type="checkbox"/> RR, HAZARDOUS WASTE, SOLID, NOS. (D040), 9, NA 3672 PG III (D040)						001 DT		46000		P		D040			
b.															
c.															
d.															
J. Additional Descriptions for Materials Listed Above BR 5960						K. Handling Codes for Wastes Listed Above D-81 LANDFILL									
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4270 CHATT- TN 37405						CW in EMERGENCY RESPONSE INFO 1-800-765-8713 24 Hr # 1-800-925-9551									
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Printed/Typed Name 45 ASBEST FORTUN SHALE				Signature THE SAAD SITE STEERING COMMITTEE [Signature]				Month Day Year 11/20/94							
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name WESLEY LAYTON				Signature [Signature]				Month Day Year 12/08/94			
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name				Signature				Month Day Year			
19. Discrepancy Indication Space															
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.															
Printed/Typed Name				Signature				Month Day Year							

2 4 1330

a print or type

in pen for use on other

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TN 0065833543	Manifest Document No. HA-C-14	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address J.F. SHAD TRAIL SITE 3055 TRAIL DR. NASHVILLE TN 37211				A. State Manifest Document Number			
4. Generator's Phone (615) 533-0297				B. State Generator's ID			
5. Transporter 1 Company Name RUBBIE D.V. D.		6. US EPA ID Number LA 0067138391		C. State Transporter's ID			
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 255-744-8440			
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD FENTON IN 46806		10. US EPA ID Number IN 0078911146		E. State Transporter's ID			
				F. Transporter's Phone			
				G. State Facility's ID			
				H. Facility's Phone 219-447-5585			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) RM a. <input checked="" type="checkbox"/> RQ. HAZARDOUS WASTE: SOLID, NOS. (D040), 9, NA 3077 PG III (D040)			12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	1. Waste No.
			001	DT	48000	P	D040
b.							
c.							
d.							
J. Additional Descriptions for Materials Listed Above BR 5960				K. Handling Codes for Wastes Listed Above D-S1 LANDFILL			
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4270 CHATT. TN 37405				CWM EMERGENCY RESPONSE INFO 1-800-765-8713 24 Hr # 1-800-925-9551			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name AS AGENT FOR THE SHAD SITE		Signature [Signature]		Month Day Year 11/20/94			
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name WILLIAM S. BARKER JR.		Signature William S. Barker Jr.		Month Day Year 12/08/94			
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name		Signature		Month Day Year			
19. Discrepancy Indication Space							
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.							
Printed/Typed Name		Signature		Month Day Year			

GENERATOR

TRANSPORTER

FACILITY

2 4 1631

Please print or type

Form designed for use on the 10/1/92

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. TN-0-0-6-5-8-3-3-5-4-3	Manifest Document No. AO-0-1-5	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address J.P. SAA SROU DAIS SITS 3655 TRANSDAIS DR. NASHVILLE TN 37211				A. State Manifest Document Number		
4. Generator's Phone (615) 333-0397				B. State Generator's ID		
5. Transporter 1 Company Name ROBERT D WOOD		6. US EPA ID Number AL-0-0-6-7-1-3-8-8-9-1		C. State Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone 205-744-2440		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD FORT WAYNE IN 46806		10. US EPA ID Number IN-0-0-7-8-9-1-1-4-6		E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 219-447-5585		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers	13. Total Quantity	14. Unit Wt/Vol	15. Waste No.
a. <input checked="" type="checkbox"/> RQ, HAZARDOUS WASTE, SOLID, N.O.S. (D040), 9, NA 3077 PG III (D040)			No. Type			
			001 DT	47000	P	D040
b.						
c.						
d.						
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above		
BR 5960				D-81 LANDFILL		
15. Special Handling Instructions and Additional Information RETURN MANIFEST TO: P.O. Box 4070 CHAFF, TN 37405				CWM EMERGENCY RESPONSE INFO. 1-800-765-8713 24hr 1-800-925-9551		
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Printed/Typed Name THE SAA SITS		Signature [Signature]		Month Day Year 11-20-89		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name STAN N.C. BROWN		Signature [Signature]		Month Day Year 12-08-94		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name		Signature		Month Day Year		



OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

2 4 1632

CFWT

PLEASE PRINT OR TYPE

(Form designed for use on elite (12-pitch typewriter))

Form Approved, OMB No. 2050-0039, Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.

T-N-D-0-6-5-8-3-3-5-4-3

Manifest Document No.

A-0-0-1-6

2. Page 1

of 1

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address

JOHN P SAAD & SONS INC

3655 TROUSDALE DR

NASHVILLE TN 37204-4518

4. Generator's Phone ()

615-834-3333

5. Transporter 1 Company Name

DART Trucking Inc

6. US EPA ID Number

OH-009865825

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.

4636 ADAMS CENTER ROAD

FORT WAYNE IN 46806

10. US EPA ID Number

I-N-D-0-7-8-9-1-1-1-4-6

A. State Manifest Document Number

INA 0987000

B. State Generator's ID

C. State Transporter's ID

T737KCOH

D. Transporter's Phone ()

216-533-9841

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

(219)447-5585

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

RQ, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers

No.

Type

13. Total Quantity

14. Total Wt/Vol.

Waste No.

001 DT 48000 P

D040

J. General Description of Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-81 LANDFILL

L. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800)765-8713

RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405

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Printed/Typed Name

Signature

Date
Month Day Year
12 09 94

AS AGENT FOR TONB SHALE OF STEELING COMMITTEE

Printed/Typed Name

Signature

Date
Month Day Year
12 09 94

17. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date
Month Day Year
12 09 94

18. Discrepancy Indication Space

19. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19

Printed/Typed Name

Signature

Date
Month Day Year
12 09 94



P.O. Box 7035
Indianapolis, IN 46207-7035

2 4 1333

CFWT

PLEASE PRINT OR TYPE

(Form designed for use on 11x17 (12-pitch typewriter.)

Form Approved OMB No. 2050-0039 Expires 12-30-92

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.

Manifest Document No. A-0-0-17

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address
JOHN P SAAD & SONS INC
3655 TROUSDALE DR
NASHVILLE TN 37204-4518

A. State Manifest Document Number
INA 0986999

4. Generator's Phone (615) 333-0397

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

ROBBIE A. WOOD

A-L-D-0-6-7-1-3-8-8-9-1

D. Transporter's Phone 205-744-8440

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

9. Designated Facility Name and Site Address

10. US EPA ID Number

G. State Facility's ID

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

I-N-D-0-7-8-9-1-1-1-4-6

H. Facility's Phone (219) 447-5585

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers

13. Total Quantity

14. Total Wt/Vol.

15. Waste No.

RD, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

No.

Type

001 RT 46000 P

D040

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above

BR5960

D-81 LANDFILL

16. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800) 765-8713

RETURN MANIFEST TO: P.O. Box 4470 CHATTANOOGA TN 37405

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Printed/Typed Name

THE SAAD SITE

Signature

Date

AGENT FOR CHAIRMAN OF SELECTING COMMITTEE

Signature

Month Day Year 12 09 99

18. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

19. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted item 19.

Printed/Typed Name

Signature

Date

Month Day Year

INA 0986999

PLEASE PRINT OR TYPE

(Form designed for use on cliche (12-pitch typewriter.)

Form Approved OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA No.

Manifest
Document No.

2. Page 1

Information in the shaded areas is
not required by Federal law, but
items D, F, H, I and K are required by
State law.

3. Generator's Name and Mailing Address

JOHN P SAAD & SONS INC
3655 TROUSDALE DR

NASHVILLE TN 37204-4518

4. Generator's Phone () 615 333-0397

5. Transporter 1 Company Name

DACT TRUCKING

6. US EPA ID Number

DH-D-0098-65825

7. Transporter 2 Company Name

8. US EPA ID Number

A. State Manifest Document Number

INA 0986998

B. State Generator's ID

C. State Transporter's ID

T737A60h

D. Transporter's Phone

216-533-9841

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

10. US EPA ID Number

I.N.D.0.7.8.9.1.1.1.4.6

H. Facility's Phone

(219)447-5585

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

RQ, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers

No. Type

13. Total
Quantity

14. Total
Wt/Vol.

Waste No

001 D.T.

47000

P

D040

15. Additional Descriptions for Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-81 LANDFILL

16. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800)765-8713

RETURN MANIFEST TO P.O. Box 4270 CHATTANOOGA TN. 37405

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Printed/Typed Name

THE SAAD SITE

Signature

AS AGENT FOR ON BEHALF OF SISTERING COMPANIES

Date
Month Day Year
12 09 94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

RICHARD KALIE

Signature

Richard Kalie

Date
Month Day Year
12 09 94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date
Month Day Year
12 09 94

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Date
Month Day Year
12 09 94

INA 0986998



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CFWT

PLEASE PRINT OR TYPE

(Form designed for use on elite (12 pitch typewriter.)

Form Approved OMB No. 2050-0039. Expires 4-30-94

**UNIFORM HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA No.

T.N.D.0.6.5.8.3.3.5.4.3

Manifest
Document No.

100019

2. Page 1

of 1

Information in the shaded areas is
not required by Federal law, but
items D, F, H, I and K are required by
State law.

3. Generator's Name and Mailing Address

JOHN P SAAD & SONS INC
3655 TROUSDALE DR

NASHVILLE TN 37204-4518

4. Generator's Phone () 615 () 333-0397

5. Transporter 1 Company Name

DART TRACKING

6. US EPA ID Number

0.HD.00.9.8.6.5.8.2.5

A. State Manifest Document Number

INA 0986997

B. State Generator's ID

C. State Transporter's ID

T737K60h

D. Transporter's Phone () 25-533-9841

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

10. US EPA ID Number

1.N.D.0.7.8.9.1.1.1.4.6

G. State Facility's ID

H. Facility's Phone

(219)447-5585

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

RD, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers

No.

Type

13.
Total
Quantity

14.
Total
Wt/Vol.

15.
Waste No.

001 D.T 44000 P

D040

J. Additional Descriptions for Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-81 LANDFILL

15. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800)765-8713

RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405

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Printed/Typed Name:

THE SAAD SONS

Signature

[Signature]

Date

12/09/94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Elmer Cole Jr.

Signature

[Signature]

Date

12/09/94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month

Day

Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Month

Day

Year

INA
CCCCC
1



P.O. Box 7035
Indianapolis, IN 46207-7035

2 4 1336

CFWT

PLEASE PRINT OR TYPE

(Form designed for use on either 12-pitch typewriter)

Form Approved OMB No. 2050-0039 Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.

T.N.D.0.6.5.8.3.3.5.4.3

Manifest
Document No.

H.0.0.2.0

2. Page 1

of 1

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address

JOHN P SAAD & SONS INC
3655 TROUSDALE DR
NASHVILLE TN 37204-4518

4. Generator's Phone

615 253-3333

5. Transporter 1 Company Name

ROBBIE D. WOOD

6. US EPA ID Number

ALD.0.6.7.1.3.8.8.4.1

A. State Manifest Document Number

INA 0986996

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone 205-744-8440

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

(219) 447-5585

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

10. US EPA ID Number

1.N.D.0.7.8.9.1.1.1.4.6

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

RD, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers

No.

Type

13. Total Quantity

14. Total Wt/Vol.

15. Waste No.

001 D.T. 48000 P

D040

Additional Description of Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-81 LANDFILL

16. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800) 765-8713

RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

THE SAAD SITE

Signature

[Signature]

Month 12 Day 09 Year 94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

JOHN F. WILKINS

Signature

[Signature]

Month 12 Day 09 Year 94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month . Day . Year .

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Month . Day . Year .

In case of a spill call the Indiana Office of Environmental Response at 800/424-8802 or 202/426-2675



PLEASE PRINT OR TYPE

(Form designed for use on 11x17 inch typewriter)

Form Approved OMB No 2050-0039 Expires 11-30-94

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA No.

Manifest
Document No.

2. Page 1
of 1

Information in the shaded areas is
not required by Federal law but
items D, F, H, I and K are required by
State law.

3. Generator's Name and Mailing Address

JOHN P SAAD & SONS INC

3655 TROUSDALE DR

NASHVILLE TN 37204-4518

4. Generator's Phone ()

615-333-0397

5. Transporter 1 Company Name

Robbie D. Wood

6. US EPA ID Number

A.L.D.0.6.7.1.3.8.89.1

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.

4636 ADAMS CENTER ROAD

FORT WAYNE IN 46806

10. US EPA ID Number

I.N.D.0.7.8.9.1.1.1.4.6

A. State Manifest Document Number

INA 0986995

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone 205-744-2440

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

(219)447-5585

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

RD, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers
No. Type

001 DT

13. Total
Quantity

47000

14. Total
Wt/Vol.

P

Waste No.

D040

J. Additional Descriptions for Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-B1 LANDFILL

15. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800)765-8713

RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

THE SAAD SITE

Signature

[Signature]

Month Day Year
12 09 94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Angie Ston

Signature

[Signature]

Month Day Year
12 09 94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year
12 09 94

19. Discrepancy Indication Space

20. Facility Owner or Operator. Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Month Day Year
12 09 94

case of a spill call the Indiana Office of Environmental Resp
National Response Center at 800/424-8802 or 202/426-2675.

PLEASE PRINT OR TYPE

(Form designed for use on a typewriter or computer terminal)

Form Approved OMB No. 2050-0039 Expires 4-30-94

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.	
3. Generator's Name and Mailing Address JOHN P SAAD & SONS INC 3655 TROUSDALE DR NASHVILLE TN 37204-4518 4. Generator's Phone (615) 658-3333			A. State Manifest Document Number INA 0986994		B. State Generator's ID	
5. Transporter 1 Company Name ROBBIE D. WOOD			6. US EPA ID Number ALD-06-713889-1		C. State Transporter's ID	
7. Transporter 2 Company Name			8. US EPA ID Number		D. Transporter's Phone 205-744-8440	
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD FORT WAYNE IN 46806			10. US EPA ID Number I.N.D.0.7.8.9.1.1.1.4.6		E. State Transporter's ID	
					F. Transporter's Phone	
					G. State Facility's ID	
					H. Facility's Phone (219)447-5585	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) RD, HAZARDOUS WASTE, SOLID, N.O.S., (D040), 9, NA3077, PG III (D040)			12. Containers No. Type 001 DT 47000		13. Total Quantity P	14. Total Wt/Vol. D040
15. Special Handling Instructions and Additional Information CWM Emergency Response Information (800)765-8713 RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405			K. Handling Codes for Wastes Listed Above D-81 LANDFILL			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name AS AGENT FOR THE SAAD SITE			Signature [Signature]		Date 11/20/94	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name CRAIG STAY			Signature [Signature]		Date 11/20/94	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name			Signature		Date Month Day Year	
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19. Printed/Typed Name						
			Signature		Date Month Day Year	

In case of a spill call the Indiana Office of Environmental
National Response Center at 800/424-8802 or 202/426-2675



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

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CFWT

PLEASE PRINT OR TYPE

(Form designed for use on elite 12-pitch typewriter)

Form Approved OMB No. 2050-0039 Expires 9-30-92

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA No. T.N.D.0.6.5.8.3.3.5.4.3		Manifest Document No. A-0023		2. Page 1 of 1		Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.					
3. Generator's Name and Mailing Address JOHN P SAAD & SONS INC 3655 TROUSDALE DR NASHVILLE TN 37204-4518						A. State Manifest Document Number INA 0986993							
4. Generator's Phone (615) 333-0397						B. State Generator's ID							
5. Transporter 1 Company Name Robbie D. Wood						C. State Transporter's ID							
6. US EPA ID Number ALD-067138891						D. Transporter's Phone 205-744-3440							
7. Transporter 2 Company Name						E. State Transporter's ID							
8. US EPA ID Number						F. Transporter's Phone							
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD FORT WAYNE IN 46806						G. State Facility's ID							
10. US EPA ID Number I.N.D.0.7.8.9.1.1.1.4.6						H. Facility's Phone (219)447-5585							
11. US DOT Description Including Proper Shipping Name Hazard Class, and ID Number						12. Containers		13. Total Quantity		14. Total Wt/Vol.		15. Waste No.	
RO, HAZARDOUS WASTE, SOLID, N.O.S., (D040), 9, NA3077, PG III (D040)						No. Type						D040	
J. Additional Descriptions for Materials Listed Above BR5960						K. Handling Codes for Wastes Listed Above D-81 LANDFILL							
15. Special Handling Instructions and Additional Information CWM Emergency Response Information (800)765-8713 <u>Return Manifest to: P.O. Box 4270 CHATTANOOGA TN 37405</u>													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name: AS AGENT FOR & ON BEHALF OF STEERING COMMITTEE						Signature: TH SAAD SITE 11/20/94							
17. Transporter 1 Acknowledgement of Receipt of Materials													
Printed/Typed Name: Ricky Mc Carley						Signature: Rick Mc Carley							
18. Transporter 2 Acknowledgement of Receipt of Materials													
Printed/Typed Name:						Signature:							
19. Discrepancy Indication Space													
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.													
Printed/Typed Name:						Signature:							
						Month Day Year							

In the event of a spill call the Indiana Office of Environmental Response at 800/424-8802 or 202/426-2675.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

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CFWT

PLEASE PRINT OR TYPE

(Form designed for use on elite (12-pitch typewriter))

Form Approved OMB No. 2050-0039, Expires 11-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.

T.N.D.0.6.5.8.3.3.5.4.3

Manifest Document No.

H0024

2. Page 1

of 1

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

3. Generator's Name and Mailing Address

JOHN P SAAD & SONS INC
3655 TROUSDALE DR
NASHVILLE TN 37204-4519

4. Generator's Phone

6.5.8.3.3.5.4.3 333-0397

5. Transporter 1 Company Name

ROBB, E. D. WOOD

6. US EPA ID Number

ALD-0-811388 9.1

7. Transporter 2 Company Name

8. US EPA ID Number

.

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

10. US EPA ID Number

1.N.D.0.7.8.9.1.1.1.4.6

A. State Manifest Document Number

INA 0987001

B. State Generator's ID

C. State Transporter's ID

D. Transporter's Phone 205-744-8440

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

H. Facility's Phone

(219)447-5585

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

RD, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers

No.

Type

13. Total Quantity

14. Total Wt/Vol.

15. Waste No.

001 DT 4.7000 P

D040

Additional Description for Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-81 LANDFILL

15. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800)765-8713

RETAIN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name

THUSSARD SITS

Signature

[Signature]

Month 12 Day 09 Year 94

AS AGENT FOR THE BEHALF OF STEERING COMMITTEE

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

FRANKE POLETZ

Signature

[Signature]

Month 12 Day 09 Year 94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month . Day . Year .

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Month . Day . Year .

In case of a spill call the Indiana Office of Environmental Response at 311-4336 (day or night) and the National Response Center at 800/424-8802 or 202/426-2675.

INA 0987001



PLEASE PRINT OR TYPE

Form Approved OMB No. 2050-0039. Expires 4-30-94

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No.

Manifest No.

2. Page 1

Information in the shaded areas is not required by Federal law, but items D, F, H, I and K are required by State law.

Generator's Name and Mailing Address
JOHN P SAAD & SONS INC
3655 TROUSDALE DR
NASHVILLE TN 37204-4518

A. State Manifest Document Number

INA 0987002

B. State Generator's ID

4. Generator's Phone

615 287-2000 333-0397

5. Transporter 1 Company Name

ROBBIE D. WOOD

6. US EPA ID Number

ALD-067138891

C. State Transporter's ID

D. Transporter's Phone 265-744-8440

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

10. US EPA ID Number

I. N. D. 0. 7. 8. 9. 1. 1. 1. 4. 6

G. State Facility's ID

H. Facility's Phone

(219) 447-5585

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

RQ, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers

No. Type

13. Total Quantity

14. Total Wt/Vol.

Waste No.

0010-T40000 P

D040

15. Hazardous Materials Listed Above

BR5960

16. Handling Codes for Wastes Listed Above

D-81 LANDFILL

17. Special Handling, Instructions and Additional Information

CWM Emergency Response Information (800)765-8713

RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405

18. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name

THE SAAD SITE

Signature

[Signature]

Month Day Year 11/20/94

19. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Rich Lynch

Signature

[Signature]

Month Day Year 11/20/94

20. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

21. Discrepancy Indication Space

22. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Month Day Year



OFFICE OF SOLID AND HAZARDOUS WASTE MANAGEMENT
P.O. Box 7035
Indianapolis, IN 46207-7035

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CFMT

PLEASE PRINT OR TYPE

(Form assigned for use on site; 12-inch typewriter)

Approved OMB No. 2050-0039 E.O. 12812

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA No.		Manifest No.		2. Page 1 of 1		Information in the shaded areas not required by Federal law, but items D, F, H, I and K are required by State law.	
3. Generator's Name and Mailing Address JOHN P. SARD & SONS INC 3655 TROUSDALE DR NASHVILLE TN 37204-4518		T.N.D. 0-6-5-6-3-3-5-4-3		H00-0-2-6		A. State Manifest Document Number INA 0987003		B. State Generator's ID	
4. Generator's Phone (615) 511-1111		333-0397		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone 205-744-8110	
5. Transporter 1 Company Name Robbie D. Wood		ALD-0-6-7-1-3-8-3-4-1		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
7. Transporter 2 Company Name						G. State Facility's ID		H. Facility's Phone (219) 447-5585	
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. 4636 ADAMS CENTER ROAD FORT WAYNE IN 46806		10. US EPA ID Number		I. N.D. 0-7-8-9-1-1-1-4-6		13. Total Quantity		14. Total Weight	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) RD, HAZARDOUS WASTE, SOLID, N.O.S., (D040), 9, NA3077, PG III (D040)		12. Containers No. Type		001 DTY8000 P		D040			
13. Special Handling Instructions and Additional Information CWM Emergency Response Information (800) 765-8713 RETURN MANIFEST TO: P.O. Box 4220 CHATTANOOGA TN 37405 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.		K. Handling Codes for Wastes Listed Above D-81 LANDFILL							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Hamp Cason		Signature Hamp Cason		Date 1-20-94		18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature Hamp Cason	
19. Discrepancy Indication Space									
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted item 19. Printed/Typed Name		Signature		Date Month Day Year 1-20-94					



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CFWT

PLEASE PRINT OR TYPE

(Form designed for use on file (12 punch typewriter))

Form Approved OMB No. 2050-0039 Expires 9-30-94

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA No.

T. N. D. 0. 6. 5. 8. 3. 3. 5. 4. 3

Manifest
document No.

100-27

2. Page 1
of 1

Information in the shaded areas is
not required by Federal law, but
items D, F, H, I and K are required by
State law.

3. Generator's Name and Mailing Address

JOHN P SAAD & SONS INC
3655 TROUSDALE DR
NASHVILLE TN 37204-4518

A. Manifest Document Number

INA 0987004

4. Generator's Phone ()

615) 353-0397

B. State Generator's ID

5. Transporter 1 Company Name

DACT Trucking

6. US EPA ID Number

DHD 009865825

C. State Transporter's ID

7737Keb

7. Transporter 2 Company Name

8. US EPA ID Number

D. Transporter's Phone ()

215-533-4841

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

10. US EPA ID Number

I. N. D. 0. 7. 8. 9. 1. 1. 1. 4. 6

H. Facility's Phone

(219) 447-5585

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

RD, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers

No. Type

13. Total Quantity

14. Total Wt/Vol.

15. Waste No.

001 DT 44000 P

D040

16. General Descriptions for Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-81 LANDFILL

17. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800)765-8713

RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405

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Printed/Typed Name

THS SAAD SONS

Signature

John P. Saad

Month Day Year
12 09 94

AS AGENT FOR ON BEHALF OF

STEERING COMMITTEE

19. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Ed Overholt

Signature

Ed. Overholt

Month Day Year
12 09 94

20. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year
. . .

21. Discrepancy Indication Space

22. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted item 19.

Printed/Typed Name

Signature

Month Day Year
. . .

case of a spill call the Indiana Office of Environmental Resp at 317/241-4336 (day or night) and the
ational Response Center at 800/424-8802 or 202/426-2675.

INA 0987004

24 1344

CFWT

PLEASE PRINT OR TYPE

(Form designed for use on a 12-inch typewriter)

Approved: OMB No. 2050-0039 Expires 9-30-92

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA No.

T.N.D.0.6.5.8.3.3.5.4.3

Manifest
Document No.

10028

2. Page 1

Information in the shaded areas is
not required by Federal law, but
items D, F, H, I and K are required by
State law.

3. Generator's Name and Mailing Address
JOHN P SAAD & SONS INC
3655 TROUSDALE DR
NASHVILLE TN 37204-4515

A. State Manifest Document Number

INA 0987005

B. State Generator's ID

4. Generator's Phone () 615

333-0397

6. US EPA ID Number

0.H.A.00.9.8.6.5.8.2.5

5. Transporter 1 Company Name

DART TRUCKING

C. State Transporter's ID

T737604

D. Transporter's Phone

215-533-9841

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

10. US EPA ID Number

I.N.D.0.7.8.9.1.1.1.4.6

G. State Facility's ID

H. Facility's Phone

(219)447-5585

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)

RO, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

12. Containers

No.

Type

13. Total
Quantity

14. Total
Wt/Vol.

I
Waste No.

001 DT 42500 P

D040

J. Additional Descriptions for Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-81 LANDFILL

L. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800)765-8713

RETURN MANIFEST TO: PO. Box 4270 CHATTANOOGA TN 37405

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

Signature

Date
Month Day Year
1 20 94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date
Month Day Year
1 20 94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date
Month Day Year
1 20 94

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Date
Month Day Year
1 20 94

INA 0987005



24 1345

CFWT

PLEASE PRINT OR TYPE

(Form designed for use on site (12-pitch typewriter))

Form Approved OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS
WASTE MANIFEST

1. Generator's US EPA No.

Manifest
Document No.
H-0029

2. Page 1
of 1

Information in the shaded areas is
not required by Federal law, but
items D, F, H, I and K are required by
State law.

J. Generator's Name and Mailing Address
JOHN P SAAD & SONS INC
3655 TROUSDALE DR
NASHVILLE TN 37204-4518

A. State Manifest Document Number
INA 0987006

4. Generator's Phone (615) 833-0397

6. US EPA ID Number

B. State Generator's ID

5. Transporter 1 Company Name

8. US EPA ID Number

C. State Transporter's ID T737K006

7. Transporter 2 Company Name

10. US EPA ID Number

D. Transporter's Phone

E. State Transporter's ID

F. Transporter's Phone

3. Designated Facility Name and Site Address

CHEMICAL WASTE MANAGEMENT, INC.
4636 ADAMS CENTER ROAD
FORT WAYNE IN 46806

12. Containers

G. State Facility's ID

H. Facility's Phone
(219) 447-5585

11. US DOT Description, including Proper Shipping Name, Hazard Class, and ID Number

12. Containers
No. Type

13. Total
Quantity

14. Total
Wt/Vol.

15. Waste No.

RQ, HAZARDOUS WASTE, SOLID, N.O.S., (D040),
9, NA3077, PG III (D040)

001 DT 48000 P

D040

L. General Description of Materials Listed Above

BR5960

K. Handling Codes for Wastes Listed Above

D-B1 LANDFILL

M. Special Handling Instructions and Additional Information

CWM Emergency Response Information (800) 765-8713

RETURN MANIFEST TO: P.O. Box 4270 CHATTANOOGA TN 37405

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

THS SAAD SITS

Signature

Gray VV

Month Day Year
11 2 09 94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Chuck Schaefer

Signature

Ch Schaefer

Month Day Year
11 2 09 94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year
11 2 09 94

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted Item 19.

Printed/Typed Name

Signature

Month Day Year
11 2 09 94



South Carolina Department of Health and Environmental Control

24 1346

Bureau of Solid & Hazardous Waste Mgt
2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-6700
Emergency & Holidays: (803) 753-6448

Please print or type. (Form designed for use on 8 1/2 x 11 (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	MANIFEST DOCUMENT NO.	2. Page 1 of 3	Information in the shaded areas is not required by Federal law, but is by State law.
3. Generator's Name and Mailing Address J.P. SAAD TOWNSHIP SITE 3655 TOWNSHIP DR. NASHVILLE TN 37211		TIM 101615813354134101310			
4. Generator's Phone 615 333-0397		5. Transporter 1 Company Name ALLEY-CASSETTY Trucking Co.		6. State Manifest Document Number	
5. Transporter 1 US EPA ID Number TN 198211350114		6. Transporter's Phone 615-294-7196		7. State Transporter's ID	
8. Designated Facility Name and Site Address Laidlaw Environmental Services of South Carolina, Inc. Route 1, Box 255 Pinewood, South Carolina 29125		9. US EPA ID Number SC 070375985		8. State Facility's ID	
10. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity	
a. (RQ) HAZARDOUS WASTE, SOLID N.O.S. (D040)		No. Type		Total Quantity	
9, NA 3077 (D040)		0101 DT 4501010 P		P	
14. Additional Descriptions for Materials Listed Above		15. Special Handling Instructions and Additional Information		16. HANDLING CODES FOR WASTES LISTED ABOVE	
a. P W 06058 9101 c. P W		b. P W		d. P W	
17. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.		18. PUBLIC REPORTING BURDEN FOR THIS COLLECTION OF INFORMATION: This burden estimate is an average of 30 minutes for generators, 15 minutes for transporters, and 15 minutes for treatment, storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding this burden estimate, including suggestions for reducing this burden, to Chief Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St. S.W., Washington, D.C. 20460 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.		19. Date	
Printed/Typed Name AS AGENT FOR TOWNSHIP BEHALF OF THE SAAD SITE STEERING COMMITTEE		Signature Greg Neal		Month Day Year 1/21/01 94	
20. TRANSPORTER 1 Acknowledgement of Receipt of Materials		21. TRANSPORTER 2 Acknowledgement of Receipt of Materials		22. Date	
Printed/Typed Name David Simmons		Signature David Simmons		Month Day Year 1/21/01 94	
19. Discrepancy Indication Space		a. lbs. c. lbs.		b. lbs. d. lbs.	
23. FACILITY Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		Printed/Typed Name		Signature	
Month Day Year		Month Day Year		Month Day Year	



South Carolina Department of Health and Environmental Control

2 4 1347

Bureau of Solid & Hazardous Waste Mgt.
2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-6200
Emergency & Hotlines: (803) 253-8448

Please print or type.

(Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039. Expires 9-30-

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	MANIFEST DOCUMENT NO.	2. Page 1 of 3	Information in the shaded areas not required by Federal law, but by State law.
3. Generator's Name and Mailing Address J.P. SAND TOWNSHIP S.C. 3655 TOWNSHIP DR. NASHVILLE TN 37211		4. US EPA ID Number TN0101615181313151413		5. US EPA ID Number H10101311	
6. Generator's Phone (615) 333-0397		7. US EPA ID Number TN0101615181313151413		8. US EPA ID Number H10101311	
9. Designated Facility Name and Site Address Laidlaw Environmental Services of South Carolina, Inc. Route 1, Box 255 Pinewood, South Carolina 29125		10. US EPA ID Number SCD070375985		11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) (R&S) HAZARDOUS WASTE, SOLID N.O.S., (D040) 9, NA 3077 (D040)	
12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	
01011 D T 44101010 P					
15. Special Handling Instructions and Additional Information WO# 189567		16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.		17. Handling codes for wastes listed above	
18. TRANSPORTER 1 Acknowledgement of Receipt of Materials Printed/Typed Name: AS AGENT FOR TON BEHAVOR THE SMOO SITE SITTING COMMITTEE Signature: [Signature] Date: 1/12/19		19. TRANSPORTER 2 Acknowledgement of Receipt of Materials Printed/Typed Name: KERRY FOUSHEE Signature: [Signature] Date: 1/12/19		20. FACILITY Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name: [Blank] Signature: [Blank] Date: [Blank]	



South Carolina Department of Health and Environmental Control

2 4 1348
Bureau of Solid & Hazardous Waste Mgt.
2600 Bull Street, Columbia, SC 29201
Phone: (803) 734-8300
Emergency & Mailings: (803) 763-6468

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039. Expires 9-1

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		MANIFEST DOCUMENT NO.		2. Page 1 of 3		Information in the shaded areas not required by Federal law, but by State law.	
3. Generator's Name and Mailing Address J. P. SAAD TRUSDALE SITE 5675 TRUSDALE DR. NASHVILLE TN 37211		4. Generator's Phone 615 333-0397		5. Transporter 1 Company Name HILLY-CASSETTY TRUCKING CO.		6. US EPA ID Number TN D19 8211350114		7. US EPA ID Number	
8. Designated Facility Name and Site Address Laidlaw Environmental Services of South Carolina, Inc. Route 1, Box 255 Pinewood, South Carolina 29125		9. US EPA ID Number SC D070375985		10. US EPA ID Number		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) (RQ) HAZARDOUS WASTE, SOLID N.O.S., (D040) 9, NA3077 (D040)		12. Containers No. Type Total Quantity Unit Wt/Vol 0101 DT 44000 P	
13. Additional Descriptions for Materials Listed Above. P W 016058 9101 C P W		14. Handling codes for wastes listed above		15. Special Handling Instructions and Additional Information WO# 189568		16. PUBLIC REPORTING BURDEN: This collection of information is estimated to average 30 minutes for generators, 15 minutes for transporters, and 15 minutes for treatment, storage, and disposal facilities. This includes reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding this burden estimate, including suggestions for reducing this burden, to Chief Information Policy, EPA, Mail 222, U.S. Environmental Protection Agency, 401 M St., Washington, D.C. 20460 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.		17. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.	
18. AS AGENT FOR DONOR/RECEIVER TESTING COMMITTEE		Signature [Signature]		Month Day Year 11/2/1994		19. Discrepancy Indication Space a. b. c. d.		20. FACILITY Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.	
21. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Johnny Simmons		Signature [Signature]		Month Day Year 11/2/10		22. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature Month Day Year	
23. FACILITY Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		Printed/Typed Name		Signature		Month Day Year		24. FACILITY Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.	

DEPARTMENT
of
TENNESSEE

NON - HAZARDOUS
WASTE MANIFEST

FOR OFFICE USE ONLY

Customer Acct. No. _____

Ticket No. _____

GENERATOR

NO. 08936

Name SAAD SITE

Generating Location SAME

Address 3655 TROUSDALE DRIVE

NASHVILLE, TENNESSEE 37211

Phone No. (615) 333-0397

I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS	22	T
	CONCRETE, WOOD, METAL, SOIL		

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AS AGENT FOR & ON BEHALF OF
THE SAAD SITE STEERING COMMITTEE
GREG V. USAL

AUTHORIZED AGENT'S NAME (PRINT)

11-23-74

DATE

[Signature]
SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING

Phone No. (615) 244-7196

Address 711 FESSLERS LANE P.O. BOX 23305

Driver's Name _____

NASHVILLE, TENNESSEE 37202

Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

11/23/74
SHIPMENT DATE

[Signature]
DRIVER'S SIGNATURE

11/23/74
DELIVERY DATE

[Signature]
DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL

Phone No. (615) 359-9032

Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091

Permit No. SNE591020238T

Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME

DATE

SIGNATURE

GENERATOR

of TENNESSEE

NON - HAZARDOUS
WASTE MANIFEST

Customer Acct. No. _____
Ticket No. _____

GENERATOR

NO. 08937

2 4 1350

Name EAAD SITE
Address 3655 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating Location SAME
I.D. No. TN-3304-111794-00020

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS	22	T
	CONCRETE WOOD METAL SOIL		

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. The each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

*Agent for & on behalf of the
Solid Waste Steering Committee
GREG V. VILL*

AUTHORIZED AGENT'S NAME (PRINT)

11-23-94

DATE

[Signature]
SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLERS LANE, P.O. BOX 23305
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7196
Driver's Name _____
Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

11-23-94
SHIPMENT DATE

[Signature]
DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SN591020238T

Phone No. (615) 359-9032
Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME

DATE

SIGNATURE

GENERATOR

of TENNESSEE

NON - HAZARDOUS WASTE MANIFEST

Customer Acct. No. _____
Ticket No. _____

GENERATOR

NO. 08938

Name SAAD SITE
Address 3655 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating Location SAME 2 4 1351
I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS CONCRETE, WOOD, METAL, SOIL	22	T

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AL AGENT FOR THE CHAIRMAN OF THE
CHAD SITE STAFFING COMMITTEE
GREG V. VIAL

AUTHORIZED AGENT'S NAME

(PRINT)

11-23-94

DATE

[Signature]
SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLERS LANE, P.O. BOX 23205
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7196
Driver's Name _____
Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

11-23-94
SHIPMENT DATE

[Signature]
DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SN6591020238T

Phone No. (615) 359-9032
Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME

DATE

SIGNATURE

GENERATOR

of TENNESSEE

NON - HAZARDOUS WASTE MANIFEST

Customer Acct. No. _____
Ticket No. _____

GENERATOR

NO. 08939

2 4 1352

Name SAAD SITE
Address 3655 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating Location SAME
I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS	22	T
	CONCRETE, WOOD, METAL, SOIL		

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law: The each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AS AGENT FOR ON BEHALF OF THE
SAAD SITE STEERING COMMITTEE

GREG V. VERA

AUTHORIZED AGENT'S NAME (PRINT)

11.23.74

DATE

[Signature]
SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLERS LANE, P.O. BOX 23305
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7196
Driver's Name _____
Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SNL591020238T

Phone No. (615) 359-9032
Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME

DATE

SIGNATURE

GENERATOR

of TENNESSEE

NON - HAZARDOUS WASTE MANIFEST

Customer Acct. No. _____
Ticket No. _____

GENERATOR

NO. 08940

Name SAAD SITE
Address 3055 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating Location 344 1353
I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS	22	T
	CONCRETE WOOD, METAL, SOIL		

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AS AGENT FOR & ON BEHALF OF THE
SAAD SITE STREAM COMMITTEE

GREG V. VANCE

AUTHORIZED AGENT'S NAME

(PRINT)

11-23-94

DATE

[Signature]
SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLEERS LANE, P.O. BOX 23305
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7196
Driver's Name _____
Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

11/23/94
SHIPMENT DATE

[Signature]
DRIVER'S SIGNATURE

11/23/94
DELIVERY DATE

[Signature]
DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SN591020238T

Phone No. (615) 359-9032
Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME

DATE

SIGNATURE

GENERATOR

of TENNESSEE

NON - HAZARDOUS WASTE MANIFEST

Customer Acct. No. _____
Ticket No. _____

GENERATOR

NO. 08941

Name SAAD SITE
Address 3655 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating Location 24-1354
I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS	22	T
	CONCRETE, WOOD, METAL, SOIL		

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AS AGENT FOR & ON BEHALF OF THE
SAAD SITE STEERING COMMITTEE
GAIL V. VAIL

AUTHORIZED AGENT'S NAME (PRINT)

11-23-94

DATE

SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLERS LANE, P.O. BOX 23305
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7195
Driver's Name _____
Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

11-23-94
SHIPMENT DATE

Joe Smith
DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SNE591020238T

Phone No. (615) 359-9032
Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME

DATE

SIGNATURE

GENERATOR

of TENNESSEE

NON - HAZARDOUS
WASTE MANIFEST

Customer Acct. No. _____
Ticket No. _____

GENERATOR

NO. 08942

Name SAAD SITE
Address 3655 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating Location SAME 24 1355
I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS	22	T
	CONCRETE, WOOD, METAL, SOIL		

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law; The each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AS AGENT FOR & ON BEHALF OF THE
SOLID WASTE STOPPING COMMITTEE

GERALD V. VEARL

AUTHORIZED AGENT'S NAME

(PRINT)

11-23-94

DATE

[Signature]

SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLEERS LANE, P.O. BOX 23305
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7195
Driver's Name _____
Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

~~AS AGENT FOR & ON BEHALF OF THE SOLID WASTE STOPPING COMMITTEE~~

11-23-94
SHIPMENT DATE

[Signature: Phillip Picotzo]
DRIVER'S SIGNATURE

11-23-94
DELIVERY DATE

[Signature]
DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SN591020238T

Phone No. (615) 359-9032
Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME

DATE

SIGNATURE

GENERATOR

Customer Acct. No. _____
Ticket No. _____

GENERATOR

NO. 08943

Name SAAD, SITE
Address 3655 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating location 274 1335

I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS	CODES
	MISC. CONSTRUCTION DEBRIS	22	T	D - DRUM
	CONCRETE, WOOD, METAL, SOIL			B - BAG
				C - CARTON
				P - POUNDS
				Y - YARDS
				O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law: That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AS AGENT FOR & ON BEHALF OF THE SAND SITE STERILIZATION COMMITTEE

GREG V. VEAL 11-23-94 Greg Veal
 AUTHORIZED AGENT'S NAME (PRINT) DATE SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLERS LANE P.O. BOX 23305
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7196

Driver's Name _____

Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below:

11-23-74		<i>[Signature]</i>					
SHIPMENT DATE		DRIVER'S SIGNATURE		DELIVERY DATE		DRIVER'S SIGNATURE	

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL Phone No. (615) 359-9032
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SNL591020238T Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME _____

DATE _____

SIGNATURE

GENERATOR

of TENNESSEE

NON - HAZARDOUS
WASTE MANIFEST

Customer Acct. No. _____
Ticket No. _____

GENERATOR

NO. 08944

Name SAAD SITE
Address 3655 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating Location SAME 24 1357
I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS	22	T
	CONCRETE, WOOD, METAL, SOIL		

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AL WESLEY FOR TON BEHALF OF THE SAAD SITE STEERING COMMITTEE

GIBB V. VIAL 11.23.94 [Signature]
AUTHORIZED AGENT'S NAME (PRINT) DATE SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLEERS LANE, P.O. BOX 23305
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7196
Driver's Name _____
Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

11/23/94 [Signature] 11/23/94 [Signature]
SHIPMENT DATE DRIVER'S SIGNATURE DELIVERY DATE DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SN6591020238T

Phone No. (615) 359-9032
Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME DATE SIGNATURE

GENERATOR

of TENNESSEE

NON - HAZARDOUS
WASTE MANIFEST

Customer Acct. No. _____

Ticket No. _____

GENERATOR

NO. 08945

Name RAAD SITE
Address 3555 TROUSDALE DRIVE
NASHVILLE, TENNESSEE 37211
Phone No. (615) 333-0397

Generating Location SAME 2 4 1353
I.D. No. TN-3304-111794-00320

WASTE CODE	WASTE DESCRIPTION	QUANTITY	UNITS
	MISC. CONSTRUCTION DEBRIS CONCRETE, WOOD, METAL, SOIL	20	T

CODES
D - DRUM
B - BAG
C - CARTON
P - POUNDS
Y - YARDS
O - OTHER

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law: The each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

AS AGENT FOR AND ON BEHALF OF THE SAID SITE STEELING COMMITTEE

GIL V. VEAL

AUTHORIZED AGENT'S NAME

(PRINT)

11-23-94

DATE

[Signature]

SIGNATURE

TRANSPORTER

Transporter's Name ALLEY-CASSETTY TRUCKING
Address 711 FESSLER LANE, P.O. BOX 23305
NASHVILLE, TENNESSEE 37202

Phone No. (615) 244-7196
Driver's Name _____
Vehicle's No. _____

I hereby certify that the above named material was picked up at the Generator site listed above and delivered without incident to the disposal facility listed below.

11-23-94
SHIPMENT DATE

[Signature]
DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

DISPOSAL FACILITY

Site Name CEDAR RIDGE LANDFILL
Address 2340 MOORESVILLE HWY., LEWISBURG, TN 37091
Permit No. SNL591020238T

Phone No. (615) 359-9032
Time _____

I hereby certify that the above material has been accepted and that information presented on this document are true and accurate.

NAME

DATE

SIGNATURE

GENERATOR

APPENDIX 8

CONSULTATION

4295 Cromwell Road, Suite 614
Chattanooga, Tennessee 37421-2177
(615) 894-8102

2 4 1360

CUSTOMER: 1237
SIGNAL ENVIRONMENTAL SERVICES
P.O. BOX 4270
CHATTANOOGA, TN 37405

DATE RECD. : 11/18/94
SAMPLE DATE: 11/17/94

DATE REQUESTED: 11/23/94
CUST P.O.:

(615) 265-9551 FAX:

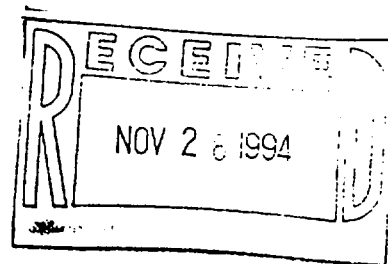
SAMPLE : SAAD NASHVILLE SAAD SITE
: SAAD11/17001A AIR

ASAP

[illegible]

VOC's: SEE ATTACHED

Phenol <0.03 ug/L of Air



ALL RESULTS RECORDED IN PPM OR MG/L UNLESS OTHERWISE STATED.

[illegible]

We hereby certify that the analytical procedures employed are those approved by the Environmental Protection Agency or other applicable methods for these analyses.

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES

By Ray R. Patterson

ANALYTICAL INDUSTRIAL RESEARCH LABORATORIES, INC.**4295 CROMWELL RD, STE 611
CHATTANOOGA, TN 37421-2177**

2 4 1361

PHONE: (615) 899 - 9301**FAX: (615) 892 - 9402****A.I.R.L. SAMPLE ID: 18528****CUSTOMER: SIGNAL ENVR. SERVICES
SAMPLE: SAAD11/17001A (AIR)****CUSTOMER PO:
SAMPLE DATE: 11/17/94****VOLATILE COMPOUNDS****METHOD (SW-846) 8240****ANALYZED: 11/23/94 BY: SVG**

COMPOUND	RESULT	MDL	COMPOUND	RESULT	MDL
chloromethane	ND	0.006	trichloroethene	0.032	0.003
bromomethane	ND	0.006	benzene	ND	0.003
vinyl chloride	ND	0.006	chlorodibromomethane	ND	0.003
chloroethane	ND	0.006	1,1,2-trichloroethane	ND	0.003
methylene chloride	ND	0.003	trans-1,3-dichloropropene	ND	0.003
acetone	ND	0.003	bromoform	ND	0.003
carbon disulfide	ND	0.003	2-hexanone	ND	0.006
1,1-dichloroethene	ND	0.003	4-methyl-2-pentanone	0.010	0.006
1,1-dichloroethane	ND	0.003	1,1,2,2-tetrachloroethane	ND	0.003
1,2-dichloroethene (total)	0.172	0.003	tetrachloroethene	ND	0.003
1,2-dichloropropane	ND	0.003	toluene	0.016	0.003
chloroform	ND	0.003	chlorobenzene	ND	0.003
1,2-dichloroethane	ND	0.003	ethylbenzene	ND	0.003
2-butanone	ND	0.006	styrene	ND	0.003
1,1,1-trichloroethane	0.004	0.003	total xylenes	ND	0.003
carbon tetrachloride	0.029	0.003	1,2-dichlorobenzene	ND	0.003
vinyl acetate	ND	0.006	1,3-dichlorobenzene	ND	0.003
dichlorobromomethane	ND	0.003	1,4-dichlorobenzene	ND	0.003
cis-1,3-dichloropropene	ND	0.003			

ALL RESULTS AND MDL'S IN MICROGRAMS/LITER OF AIR

CALIBRATION CERTIFICATE
SIGNAL ENVIRONMENTAL SERVICES, INC.
900 MANUFACTURERS ROAD
CHATTANOOGA, TN.

DATE

DEC. 19, 1994

EQUIPMENT

AIR SAMPLE PUMP

EQUIPMENT IDENTIFICATION NUMBER

#1

CALIBRATION PERFORMED BY

Michael Markow / DAN McCLELLAN

METHOD USED

CALIBRATION BURETTE

CALIBRATED TO WHAT (FLOW RATE, GAS, ETC.)

FLOW RATE = 1.5 Liters/min

24

APPENDIX 9



**BILL
COVINGTON**
COUNTY CLERK

700 SECOND AVENUE SOUTH
NASHVILLE, TN 37210

METROPOLITAN NASHVILLE
AND DAVIDSON COUNTY
BUSINESS TAX LICENSE RECEIPT

RECEIPT NUMBER

258149

BUSINESS NUMBER

70745

MAILING NAME AND ADDRESS

SIGNAL ENVIRONMENTAL SERVICES INC
P O BOX 4270
CHATTANOOGA TN 37405

OWNER 1

CORPORATION

OWNER 2

GREG V VEAL

BUSINESS LOCATION ADDRESS

SIGNAL ENVIRONMENTAL SERVI
3655 TROUSDALE RD
NASHVILLE TN 37211

THIS LICENSE EXPIRES

9/30/1995

Issuance of this license does not necessarily indicate this location is properly zoned.

* MUST DISPLAY UPPER PORTION OF
THIS LICENSE. FOLD ON
DOTTED LINE.

CLASS **4** BUSINESS

TAX PERIOD

FROM:
TO:

STATE SALES TAX NUMBER:

0000000000000000

ISSUE DATE: **10/19/94**

Bill Covington
COUNTY CLERK

M. Balien
DEPUTY CLERK

TOTAL GROSS SALES
LESS DEDUCTIONS
TAXABLE GROSS SALES

RETAIL %
WHOLESALE %

TAX DUE
CREDITS
PENALTY ON TAX DUE
INTEREST ON TAX DUE

RECORDING FEE
MINIMUM TAX
PENALTY ON MINIMUM TAX
INTEREST ON MINIMUM TAX
ADJUSTMENTS
TOTAL TAX DUE

TOTAL COMBINED METRO AND
COUNTY TAX

TAXPAYER COPY

METRO (U.S.D.)

COUNTY (G.S.D.)

5.00
15.00

5.00
15.00

20.00

20.00

40.00

METROPOLITAN GOVERNMENT OF NASHVILLE-DAVIDSON COUNTY
 DEPARTMENT OF CODES ADMINISTRATION
 INSPECTION CHECKLIST FOR USE AND OCCUPANCY

*** THIS IS NOT A USE AND OCCUPANCY LETTER ***

MAP/PARCEL 133-00-0 104.00
 LOCATED ON THE SIDE OF 3655 TROUSDALE DR

 * PERMIT NUMBER 94-09940A *

 PERMIT DATE 10/19/94

PROPERTY DESCRIPTION LOT 1. JOHN P. SAAD & SON SUBD

OWNER SAAD, ELLIS & KATHY
 CONTRACTOR SIGNAL ENVIROMENTAL SERVICES, INC.

TELEPHONE (615) 265-9551
 TELEPHONE (615) 265-9551

PURPOSE TO LOCATE A TEMPORARY OFFICE TRAILER ON PROPERTY FOR SUPERFUND CLEANUP FOR PERIOD OF TWO MONTH.

 * BEFORE A USE AND OCCUPANCY FOR THIS PROJECT CAN BE ISSUED, THE *
 * FOLLOWING APPROVALS ARE REQUIRED. NO USE AND OCCUPANCY WILL BE ISSUED *
 * UNTIL ALL NEEDS FOR EACH AGENCY ARE APPROVED. N = NEED, I = IGNORED, *
 * A = APPROVED, T = TEMPORARY, R = REJECTED, AND D = DENIED. *
 * INSPECTIONS: FOUNDATION - BEFORE CONCRETE POURED; FRAMING - BEFORE *
 * COVERING WALL AND AFTER ROUGH-IN INSPECTIONS; FINAL - BEFORE OCCUPANCY. *

N CODES ADMIN	N FIRE MARSHAL
BLDG FOUNDATION	N LIFE SAFETY
BLDG FRAMING	SPRINKLER
N BLDG FINAL	
N ELECTRICAL	
N ELECT ROUGH IN	
SERVICE RELEASE	
N ELECT FINAL	
GAS/MECH	
GAS ROUGH IN	
GAS FINAL	
PLUMBING	
PLUMB ROUGH IN	
PLUMB FINAL	
HOUSING	
N ZONING FINAL	
HVAC ELECT	
BLDG FLOOR ELEV	
LV ELEC	

INSPECTION NEEDS MAY CHANGE DUE TO CHANGES DURING CONSTRUCTION.

The Metropolitan Government Of Nashville And Davidson County

Department of Codes Administration
700 Second Avenue South
Nashville, Tennessee 37210

2 4 1369

PERMIT BOND

PERMIT BOND NO. 64S100901251BCA

KNOW ALL MEN BY THESE PRESENTS, THAT WE, THE UNDERSIGNED, _____

Signal Environmental Services, Inc. S-Hazardous Waste Remediation; BC-31

(Name must be exactly the same as state license if applicable)

Principal, of address 900 Manufacturers Rd., Chattanooga, TN 37405 and Aetna Casualty and Surety, Inc.

a Surety organized under the laws of the State of Tennessee and authorized to do business in the state of TENNESSEE are held and firmly bound unto THE METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY ("Metropolitan Government") as Oblige, for the benefit of the Metropolitan Government, and for the benefit of the owners of property on which work is performed by the Principal pursuant to a permit issued under this bond, in the full penal sum of (\$ 40,000.00) lawful money of the United States of America. We bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bonded Principal has applied to the Metropolitan Government to be registered pursuant to SECTION 11-1-15 of the Metropolitan Code of Laws.

NOW, THEREFORE, this obligation is to secure the following: that the Principal shall in all respects comply with and conform to all laws and ordinances of the Metropolitan Government, relating to building, plumbing, electrical, gas/mechanical, housing, and zoning; that this obligation shall further bind the Principal and Surety for any damage to property of the Metropolitan Government resulting from contracts of the Principal, such as but not limited to streets, roads, curbs, gutters, water and sewer lines, sidewalks, alleys, traffic signs and signals, and for the costs of repairs incurred by property owners resulting from the failure of the Principal to comply with and conform to the above mentioned laws and ordinances of the Metropolitan Government.

The term of this bond is continuous; however, the Surety shall have the right to cancel this bond at any time by a written notice stating when the cancellation shall take effect, and served upon or sent by certified mail to the Director of the Department of Codes Administration of the Metropolitan Government at least thirty (30) days prior to the effective date of the cancellation. Regardless of the number of years this bond may remain in force, the liability of the Surety shall not be cumulative, and the aggregate liability of the Surety for any and all claims, suits or action under this bond shall not exceed the sum of (\$ _____).

No right of action shall accrue by reason of this Bond, to or for the use or benefit of any one whatsoever other than the Oblige named herein.

Robert W. Hunter Principal

Aetna Casualty & Surety Company

Surety

By Robert W. Hunter, Signal Environmental Service
Inc.

Signe W. Slanicher
615-756-4452

Attorney-in-fact

Address 900 Manufacturers Rd., 2nd Floor
Chattanooga, TN 37405

Agent's Phone

Phone (615) 265-9551

Affix Seal and
Attach Agent's Power of Attorney

Fax Number (615) 265-9565

Effective date of bond 11/19/94

Amount of Contract	Bond Required
\$ 50,000 and under	\$ 10,000
\$ 50,001 and over	\$ 40,000

State Contractor Information

NOTE: ALL BIDS OR CONTRACTS WITH OWNERS OF \$25,000.00 OR GREATER REQUIRES A VALID STATE CONTRACTOR'S LICENSE PURSUANT TO TCA 82-6-102.

NAME OF LICENSEE Signal Environmental Services, Inc. S-Hazardous Waste Remediation; BC-31
(Name must be exactly the same as permit bond if applicable)

EXPIRATION DATE 03/31/95

LICENSE NUMBER 00030107

TYPE OF LICENSE Contractor - Active

LIMITS OF LICENSE \$574,000.00

Davidson County Business Tax

Location 3655 Trousdale Dr.

No 94 1994 (A)

BUILDING PERMIT

METROPOLITAN GOVERNMENT OF NASHVILLE & DAVIDSON COUNTY

Inclusive of Permits for New Construction, Additions, Alterations, Repairs, Signs, Billboards, Canopies, Marquees, Demolition, Moving of Buildings and Blasting Operations.

DEPARTMENT OF CODES ADMINISTRATION

INSPECTIONS REQUIRED

(Inspections not required on this job are marked out)

1. Foundation Inspection To be made after trenches are excavated, forms erected and before concrete is poured.
2. Frame Inspection To be made after the roof, all framing, fire-blocking and bracing are in place and all pipes, chimneys and vents are complete.
3. Final Inspection To be made after the building is complete and ready for occupancy.

NOTICE

No work may be done on any part of a building or structure beyond the point indicated by each of the inspections.

This permit card must be posted securely, be visible from the street, and be protected from the weather.

Removal, Alteration, or mutilation of this sign until completion of such work, is in violation of the law.

Any permit issued shall become invalid unless the work authorized by it shall have been commenced within six (6) months after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of one (1) year after its issuance: provided that for cause, if the work authorized by it is sufficiently under way and is being diligently pursued, one or more extensions of time, for periods not exceeding ninety (90) days each, may be allowed in writing by the director.

In the case of a permit issued to demolish a building or structure, such demolition permit shall become invalid unless the work authorized by it shall have been commenced within thirty (30) days after its issuance or unless the work so authorized shall have been completed within sixty (60) days after work is commenced: provided, that extensions of time may be allowed as provided above.

In the case of the permit being issued to move any building or structure into any residential zone district or residential development, such permit shall become invalid unless the work so authorized has been completed by permanently affixing said building or structure on a foundation within thirty (30) days after the date that the building or structure was moved onto the property located within a residential zone district or residential development. Any person who fails to complete such work within the above-mentioned thirty (30) day period shall be subject to the penalties set forth in section 1-1-7. (64-348, 1, 66-813, 1 Bill No 79-1349, 9, 6-28-79; Bill No. 88-462, 1, 10-4-88).

Map No. 133 Parcel No. 104

Date	10/19	1994
Inspection Of	By	Date
Foundation		
Frame		
Final		
Elect. Rough In		
Elect. Final		
Plumbing Rough In		
Plumbing Final		
Sewer Connection		
Gas/Mechanical Rough In		
Gas/Mechanical Final		
Zoning		
Fire Department Final		

SEE REVERSE SIDE

24 1570

APPENDIX 10



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

2. 4

1372

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

January 21, 1995

J. Andrew Goddard
Bass, Berry and Sims
First American Center
Nashville, Tennessee 37238

Dear Mr. Goddard,

The purpose of this letter is to notify the Steering Committee and Alcoa that the OSC, Fred Stroud, has directed them not to fill the area excavated during the groups compliance with EPA's Administrative Order on Consent. Mr. Stroud has requested that the area remain open during the interim period in which EPA seeks continued access and the completion of the removal of the contaminated source material.

Pursuant to EPA's statutory authority and the terms of paragraph 18 of the Administrative Order on Consent docket number 95-1-C the OSC can request the PRPs to do additional work or if they refuse then EPA will carry out the removal. As evidenced by the sampling conducted during the excavation the material is hazardous by characteristic (TCE failed TCLP) and is in contact with the groundwater. The waste material also contains toluene, xylene, vinyl chloride as well as other hazardous substances. EPA's Groundwater Section is of the opinion that this groundwater at the Site is "potential drinking water" and requires protection. The preliminary results of EPA's dye trace substantiates previous studies indicating that the contaminated water from the Saad site is migrating and poses an imminent and substantial endangerment to human health and the environment.

Based on the foregoing, it is the OSC's determination that further removal actions are needed at the site. Therefore, in order to continue the Removal in a cost effective and expedient manner the OSC has asked the PRPs not to fill in the excavation so that continued removal actions would not be delayed in re-excavating the area.

Sincerely

Fred B. Stroud
Senior, On Scene Coordinator

EXHIBIT

OVERSIZED

DOCUMENT

1

—
▽
—
de maximis, inc.

301 Gallaher View Road
Suite 227
Knoxville, TN 37919

2 4 1374



March 7, 1995

VIA FACSIMILE AND FEDERAL EXPRESS

Mr. Fred B. Stroud, On-Scene Coordinator
U.S. Environmental Protection Agency, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

**Reference: Saad Trousdale Drive Site Phase III Removal Action
Submission of Final Report**

Dear Mr. Stroud:

The Saad Site Steering Committee is pleased to submit the Final Report for the above-referenced project. You will be receiving two (2) copies of the report via overnight courier on March 8, 1995 under separate cover directly from Signal Environmental Services, Inc.

If you should have any questions or comments, please contact Mr. Bennie L. Underwood or me at your earliest convenience at (615) 691-5052.

Very truly yours,
de maximis, inc.

A handwritten signature in black ink, appearing to read "Daniel A. Lovingood".

Daniel A. Lovingood, P.G.

DAL/jca

/Enclosures Under Separate Cover

cc: Saad Trousdale Site Repository
 Bennie L. Underwood

f:\projects\3034\IP_3RPT.CVR